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By-Wilson, David A., Ed.

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The first section of this publication is an index of the 112 entries, grouped according to the following main areas of research and development within the Center: administration (11 titles listed); the personalization of teacher education (25); assessment (30); the teaching laboratory (5); curriculum-based instructional approaches to teacher education (18); team teaching (7); and projects not currently in progress (16). The second section, arranged alphabetically by author, presents complete reference and availability information and an informative abstract of each study. (JS)

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AN ANNOTATED BIBLIOGRAPHY OF PUBLISHED WORKS FROM R&D CENTER FOR TEACHER EDUCATION

David A. Wilson
(editor)

R&D Report Series No. 22

August, 1969

The Research and Development Center for Teacher Education
The University of Texas at Austin

SP003262

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FULLER, ET AL	Effects of Personalized Feedback During Teacher Preparation on Teacher Personality and Teaching Behavior

FULLER, ET AL	Intensive Individualization of Teacher Education
FULLER, ET AL	Tape Recordings, Feedback and Prospective Teachers' Self Evaluation
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_____	Observing, The Basis of Science Stating Instructional Objectives Describing Observations Comparing Observations Reasoning About Observations

BUTTS	The Relationship Between Classroom Experiences and Certain Student Characteristics
_____	Widening Vistas -- Inservice Education
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_____, _____	Inquiry Training and Problem Solving in Elementary School Children
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BUTTS, MONTAGUE	Behavioral Objectives
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_____	Science Inservice Education Practices in the Capitol Cities of the United States
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_______	Behavioral Science Memorandum No. 11
_______	Behavioral Science Memorandum No. 12
_______	Behavioral Science Memorandum No. 13
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ALPHABETICAL LISTING
OF PAPERS FROM THE
R&D CENTER FOR
TEACHER EDUCATION*

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*Except for those items noted as unavailable, all papers listed may be obtained from the R&D Center for Teacher Education, Dissemination Division, Sutton Hall 303, The University of Texas at Austin, Austin, Texas 78712. Items listed are free of charge unless stated otherwise.

RD 00 01

03.02

Author: Baldwin, Patricia

Title: THE EVOLUTION OF THE FILM ANALYSIS OF INTERACTION RECORD (FAIR) FROM THE AMIDON-FLANDERS INTERACTION ANALYSIS. APPENDIX G.

Date: 1967

Publication: R&D Center mimeograph

ERIC No.: ED 011 596

Abstract: A detailed listing is given of the revisions that were made to the Amidon-Flanders interaction scale while the film analysis of interaction record (FAIR) scale was being developed. Comments are given for guidance in the use of some of the ratings along with some ground rules and guidelines for making a film rating.

Status: Out of print and unavailable.

RD 00 02

01.

Author: Bennie, William A.

Title: RESEARCH IN TEACHER EDUCATION AT THE UNIVERSITY OF TEXAS

Date: Winter, 1965

Publication: Association for Student Teaching Newsletter

Abstract: A brief overview of the Texas R&D Center for Teacher Education, compiled some three months after the Center's inauguration. Describes purposes and basic structure of the Center and outlines several initial projects: Team Teaching, Bilingual Teaching, Individualized Instruction. Offers a brief look at the Center in its first months.

RD 00 03

03.04

Author: Bessent, E.W.

Title: DESIGNS FOR INSERVICE EDUCATION

Date: February, 1967

Publication: R&D Center monograph

ERIC No.: ED 011 591

Abstract: Three different approaches to inservice education were described that had been developed to provide individual training in group sessions. Each approach included a carefully planned sequence of learning activities intended to be presented within the organizational context of the person's work. Summer courses and summer workshops were not included in this concept of inservice education. The laboratory approach to the leadership training of instructional staff members presented three illustrative exercises that dealt with evaluating pupils' work, grouping practices, and the use of inbasket items as training materials for principals. A training approach, that was planned to help teachers implement innovations into their classrooms, provides teacher training through simulation of direct experiences with students and by observing and analyzing student classroom work. This approach requires release time for observation of demonstration classes. A discussion of the third approach, the teaching demonstration model, described the development of a formal demonstration into a carefully planned inservice technique. The final chapter listed three major propositions describing the behavior of an organization and presented a way of thinking about the use of inservice programs in organizations that might give guidance to the decisions of those who plan and direct inservice education.

RD 00 04
04.02

Authors: Bohn, Coylene
Butts, David P.
Raun, Chester E.

Title: A STUDY OF TEACHER CHARACTERISTICS AS PREDICTORS IN THE SUCCESSFUL IMPLEMENTATION OF AN INNOVATIVE CURRICULUM

Date: 1968

Publication: R&D Report Series No. 12, originally published as an R&D Center mimeograph as Science Inservice Project Research Report No. 8

Abstract: A change that has taken place in the methodology of teaching science -- a change from teaching to impart specific information to teaching students how to process the information of their experiences -- has led to questioning whether a relationship exists between selected teacher characteristics and success in teaching such a curriculum. Factors of sex, grade level taught, school district, years of teaching experience, and academic preparation in science were examined for significance.

The sample of 110 elementary teachers from six school districts were participants in an inservice teacher education program prior to teaching *Science -- A Process Approach*.

Student achievement, which was used as an index of teaching success, was assessed by administering the AAAS Competency Measure at the conclusion of each exercise. A minimum of six exercises were taught by each teacher. Multiple linear regression analysis showed that the variables of sex, grade level, school district, years of experience, and hours of science accounted for 45 per cent of the variance in the student achievement score. Of these, sex, grade level, and years of teaching experience made significant independent contributions to predicting teacher success.

RD 00 05

01.

Author: Bown, Oliver H.

Title: THE NEWLY ESTABLISHED RESEARCH AND DEVELOPMENT CENTER FOR TEACHER EDUCATION

Date: December, 1965

Publication: R&D mimeograph of paper presented to 12th Annual Conference for Advancement of Science and Mathematics Teaching, Austin, Texas, October, 1965; also presented in a symposium titled "New Roles for Psychologists in Education and Social Change," presented to the annual meeting of the Texas Psychological Association, Dallas, Texas, December, 1965.

ERIC No.: ED 011 599

Abstract: A report was made of the first 2 months of operation of the Research and Development Center in Teacher Education. The Program of this center was planned to use a partnership of educational talent and experience to provide a follow-through which can make creative ideas in education become realities in the public schools rather than just material for library shelves. Researchers, practitioners, subject-matter experts, educational media specialists, social psychologists, experts in learning and cognitive processes, anthropologists, administrators, and teachers were being organized as a team to evaluate old and new approaches to education. The child studies, sociocultural studies, and research methodology divisions of the center will be concerned with the behavioral science foundations of education from the standpoint of child and human development, learning and motivation, and sociocultural influences along with providing research consultation and evaluation. The experimental teaching and assessment and counseling divisions will be carrying out a variety of programs ranging from innovative programs of teacher education to the development of a new curriculum in science. The dissemination, educational media and materials, educational radio and television, and inservice education divisions will be concerned with various aspects of disseminating the ideas, programs, and materials which are developed by the center.

RS Price: $0.30

RD 00 06
01.

Author: Bown, Oliver H.

Title: NEW FRONTIERS IN TEACHER EDUCATION

Date: February, 1967

Publication: Kappa Delta Pi Record, 3 (3), 98-105

Abstract: This informal article reviews the development of one of the major innovative programs in teacher education at The University of Texas over a ten-year period. This part of the program began as the Mental Health in Teacher Education project, was continued through the Personality, Teacher Education and Teaching Behavior Project and continues in the evolved forms, dictated by accompanying research, as one major program in the Research and Development Center for Teacher Education.

Personalization and individualization of the developmental process through which prospective teachers move in their preservice education are the dual aims of this program. The revision of course content and procedure to mesh with the motivational and experiential level of the teacher-to-be rather than with the logical structure of the subject matter alone is discussed. The use of intensive "Feedbacks" and student teaching placement procedures based on psychological assessment and video taping of teaching performance is also described. Validated by continuing research, this program has been of increasing interest to teacher educators and to teachers themselves.

RD 00 07

03.02

Authors: Bown, Oliver H.
Fuller, Frances F.
Richek, H.G.

Title: A COMPARISON OF SELF-PERCEPTIONS OF PROSPECTIVE ELEMENTARY AND SECONDARY SCHOOL TEACHERS

Date: January, 1967

Publication: Psychology in the Schools, Vol. 4, No. 1, 21-24.

Abstract: The purpose of this study was to explore differences between prospective elementary and secondary teachers in their perceptions of self and their phenomenal worlds. The Bown Self-Report Inventory (SRI) was administered to a random sample of 174 female students at the point of admission to the professional training program. Ninety-six were prospective elementary and 78 were prospective secondary teachers. The resulting scores were submitted to a Single Classification Analysis of Variance. As hypothesized, the elementary group scored significantly higher than the secondary group on the children sub-scale (P=.00001). Elementary students also scored higher on the Hope (optimism regarding the future) scale (P=.005) and on total score (general positiveness of perception) (P=.002).

These findings were consistent with a considerable body of previous research evidence supporting differentiating characteristics of elementary and secondary teachers. The (prospective) elementary teachers demonstrate greater warmth, and a more "tender-minded," helping orientation than secondary teachers.

RD 00 08
03.02

Authors: Bown, Oliver H.
Richek, H.G.

Title: DIFFERENTIATING PROSPECTIVE ELEMENTARY AND SECONDARY SCHOOL TEACHERS

Date: December, 1966

Publication: The University of Alberta Journal of Educational Research, 1966, 12, pp. 127-130

Abstract: The assumption that elementary and secondary teachers have different personality and behavioral characteristics was further tested in this exploratory study. It was hypothesized that prospective elementary teachers would be significantly more extroverted (and less introverted) than prospective secondary teachers. The Myers-Briggs Type Indicator was administered to 149 prospective teachers enrolled in an experimental program, 71 in elementary and 78 in secondary.

A one-way analysis of variance for means yielded results which approached, but did not reach, statistical significance in the hypothesized directions (extroversion P = .06; introversion P = .11; extroversion/introversion P = .07). Differences in means in other scales did not approach significance except that the secondary group scored higher on Intuition (P = .07). The results suggested that further exploration of the extroversion-introversion dimension may be valuable in understanding grade level preferences of prospective teachers. In such studies, it may be important to take into account differences which may exist between primary and intermediate sub-groups within the elementary group and subject matter specialties within the secondary group.

RD 00 09
03.02

Authors: Bown, Oliver H.
Richek, H.G.

Title: THE BOWN SELF-REPORT INVENTORY (SRI): A QUICK SCREENING INSTRUMENT FOR MENTAL HEALTH PROFESSIONALS

Date: February, 1967

Publication: Comprehensive Psychiatry, 8 (1), pp. 45-52

Abstract: This article summarizes the development of the Bown Self-Report Inventory (SRI) through three experimental forms resulting in the current form which represents a rather high degree of psychometric refinement. A limited amount of normative, item analysis and reliability data is presented. A portion of the research which has utilized the SRI is briefly summarized attesting to the success of the instrument in differentiating sub-populations hypothesized to vary in phenomenological perceptions and attitudes.

The instrument is short, self-administered, computer scored, and on the basis of available evidence, as efficient as some of the much longer inventories in predictive power. It is suggested for consideration as a screening instrument with a variety of populations where assessment of personal outlook in dimensions which are included in most definitions of "mental health" is desirable.

RD 00 10
03.02

Authors: Bown, Oliver H.
Richek, H.G.

Title: MENTAL HEALTH OF JUNIOR COLLEGE STUDENTS

Date: 1966

Publication: Junior College Journal, 1966, 37, 18-21

Abstract: While increasing attention has been given to the developmental process which occurs during the college years as well as to mental health implications of this important period, few studies in the area have been directed toward junior college students. The present study proceeded from J.E. Kysar's hypothesis to the effect that commuter students have poorer "mental health" than their age-mates attending residential colleges or universities. The Bown Self-Report Inventory (SRI), an instrument established in previous research as successful in tapping several attitudinal/perceptual dimensions included in many current definitions of mental health, was administered to a sample of 157 junior college (commuter) students and an equal sample of senior college (residential) students. Both samples contained 76 females and 81 males of approximately equal age and grade level. Analysis revealed that with one exception, mean scores for females in the two samples were not significantly different. For males, however, the junior college commuter students had significantly more negative attitudes toward self and parents. Implications of these results and suggestions for further research with the junior college population are discussed.

RD 00.11
03.02

Authors: Bown, Oliver H.
Richek, H.G.

Title: THE MENTAL HEALTH OF COMMUTER STUDENTS: A PARTIAL TEST OF KYSAR'S HYPOTHESIS

Date: July, 1968

Publication: Mental Hygiene, 52 (3), 354-359.

Abstract: Proceeding from the hypothesis of J.E. Kysar to the effect that college commuter students have poorer "mental health" than their age-mates who reside in colleges geographically removed from their homes, the Bown Self-Report Inventory (SRI) scores of 1265 males and 899 females attending The University of Texas at Austin were compared. In the male group, 429 students were from large cities and 615 from small towns away from Austin, while 221 were residing in their (parental) homes in Austin. In the female group, 353 were from large cities, 365 from small towns, and 181 from Austin, In the male group, Austin commuters had significantly more negative attitudes toward parents ($p < .05$) than both of the resident-in-college groups, but this was regarded as insufficient evidence for accepting Kysar's more global hypothesis. In the female group, however, the Austin commuters had significantly more negative attitudes toward self than did the resident group from large cities and toward parents than both resident groups ($P < .01$). The female commuters also demonstrated a more generally negative outlook toward all areas of their phenomenal worlds than both groups of residents as evidenced by SRI total score ($P < .01$). Implications and limitations of the results are discussed.

RD 00 12
03.02

Authors: Bown, Oliver H.
Richek, H.G.

Title: PHENOMENAL CORRELATES OF JUNG'S TYPOLOGY: IMPLICATIONS FOR TEACHER PERSONALITY/TEACHER EFFECTIVENESS RESEARCH

Date: January, 1968

Publication: Journal of Analytical Psychology, 8 (1), pp. 57-65

Abstract: The Bown Self-Report Inventory (SRI) has been utilized in a large number of studies at The University of Texas, primarily in the field of teacher education. The present study, one of a substantial series, was designed to explore the relationship between SRI variables and Jungian typology as measured by the Myers-Briggs Type Indicator. Both instruments were administered to a sample of 149 female prospective teachers enrolled in an experimental program. SRI subscores and M-B type preference scores were intercorrelated. Six of the nine SRI variables were correlated significantly ($P < .005$) with the Extroversion/Introversion preference score. Significant correlations also occurred between SRI variables and other preference scores, but at lower levels of magnitude. The eight SRI subscores and the four M-B type scores were also subjected to canonical correlation yielding two significant ways in which the domains tapped by the two sets of variables are related.

All results followed theoretically derived assumptions and support the construct validity of the two instruments.

Authors: Breit, Frank D.
Butts, David P.

Title: A COMPARISON OF THE EFFECTIVENESS OF AN INSERVICE PROGRAM AND A PRESERVICE PROGRAM IN DEVELOPING CERTAIN TEACHING COMPETENCIES

Date: 1969

Publication: R&D Report Series No. 11

Abstract: This study examined the relative effectiveness of a teacher education program given at the preservice level and at the inservice level in the development of certain teacher competencies -- knowledge of science content, positive perception of goals and methods of a curriculum innovation, and facility in coping with a learning environment which emphasizes the child's responsibility for his own learning. Also examined was the relationship of certain factors to the successful development of teacher competencies by program participants. Those factors were: initial level of competence, intensity of initial attitudes, teaching experience, amount of college science, and number of years since last science course.

Four groups of individuals were included in the study. The preservice version of the program was given to 58 students enrolled in an undergraduate science methods course at The University of Texas. Fifteen students enrolled in an undergraduate social studies methods course served as a control for the group above. The inservice version of the program was given to 28 elementary school teachers enrolled in an elementary school science workshop. Eleven elementary school teachers enrolled in the summer school at The University of Texas served as a control for the group above.

The Science Process Measure for Teachers, Instructional Decisions Test, and a form of the Semantic Differential were used to measure the teacher competencies under study. Pre-test and post-test scores on the instruments were collected for all individuals.

The relative effectiveness of the teacher education program at the preservice level and at the inservice level in developing teacher competencies was investigated using analysis of variance. The relationship between certain factors and successful development of teacher competencies was analyzed using multiple linear regression.

The results of the study indicate that the total experience resulted in an increase in knowledge of the processes of science and a change in instructional decision behavior for both preservice participants and inservice participants. Limitations in the design of the study do not permit conclusions relative to the comparative effectiveness of the program at the two levels. It was also found that the total experience did affect attitude, but only to a limited extent.

In general, it was concluded that preservice and inservice teachers who experience a similar teacher education program exhibit some similar changes and some contrasting changes. Further study of these changes seemed to support the conclusion that teacher education programs need to be constructed to meet the differing needs of the participants.

RD 00 13
03.04

Authors: Bunderson, C.V.
Hereford, Carl
Stenning, Walter

Title: COMPUTER-ASSISTED INSTRUCTION IN SELF-PACED TEACHER EDUCATION

Date: February, 1968

Publication: R&D Center mimeograph of paper presented at the Convention of the American Educational Research Association, February, 1968

Abstract: A cooperative project between the R&D Center for Teacher Education and the Computer-Assisted Instruction Laboratory was undertaken during fall and spring semesters of 1967-68 in the introductory educational psychology course. The structure of the self-paced instruction project is discussed, along with the results of the first semester of operations, in terms of the distribution of student completions and achievement over the entire course. The role of the proctors is also discussed. The proctors are those students who guided a small number of the introductory educational psychology students through the self-paced course. The proctors were simultaneously taking an advanced undergraduate course in teaching methods from Dr. Carl Hereford. The excitement and commitment of these students to individualized instruction was an important observation. In addition, the economies of self-paced instruction are discussed. The computer was initially conceived as entering into self-paced instruction in two ways. One was a testing device as students finished self-paced units; the other was as a CAI supplement in self-paced instructional activities where the computer is appropriate. At the present state of development of the materials, the computer as a testing device was not seen as appropriate, not because of any limitations in the computer but because the post tests for the self-paced instruction were not sufficiently fine-grained and were not sufficiently difficult to administer to warrant automation. The computer was used to administer a statistics game by which teachers could call upon the computer's computational powers to solve statistics problems they might encounter on the job. This was successful.

RD 00 14
04.02

Author: Butts, David P.

Title: THE CLASSROOM EXPERIENCE MODEL

Date: February, 1969

Publication: R&D Center monograph, Designs for Inservice Education, E.W. Bessent, editor, pp. 27-28

Abstract: For the past 15 years, cooperating groups of academicians, administrators and public school teachers have been developing new instructional materials in a variety of areas. Curriculum innovations in mathematics and science illustrate the impacts of these groups. These curriculum innovations reflect a changed approach to instruction. They require implementation by individuals who understand and accept these changes.

To use a curriculum intelligently, a teacher must know how to manipulate content and instructional strategies, how to implement the strategies involved, and why he does it that way (i.e., the teacher must have a basis upon which to decide the wisdom of using a particular strategy at a particular time).

The classroom experience model of inservice education is a plan whereby the educational encounter is accomplished through simulation of direct experiences with students. This provides a means for guidance to teachers toward the implementation of the curriculum innovation. The selection and organization of the learning encounter begins with the identification of goals for the classroom experience model in behavioral terms. This permits development of tests to assess the acquisition of these behaviors and makes possible a careful analysis of the appropriateness and adequacy of the classroom experience model. The behavioral objectives also give specific direction to strategies of instruction. It is a common statement that "one teaches as he or she has been taught." If an innovative program emphasizes specific aspects of classroom instruction, then teachers should also experience those aspects in their inservice program.

Author: Butts, David P.

Title: MANPOWER DEVELOPMENT

Date: 1968

Publication: R&D Center monograph

Abstract: Securing change in the learning experiences of students has been the ultimate goal of curriculum innovations in mathematics, science and, more recently, social studies and linguistics. The existence of these curricula does not, however, mean that the students' learning experiences have, in fact, been changed. Spanning the gap from development of the curriculum innovation to its institutionalization represents the challenge of our day. This challenge can only be met by the development of an adequate base of manpower.

Change in the students' learning experiences can be facilitated. The structure of the learning experience includes both the curriculum and the teacher who uses that curriculum. The natures of the new curriculum innovations are such that effective use of them requires an understanding of the subject and the method that is built into the design of the program. To use the innovation effectively, most teachers find it necessary to considerably modify previous teaching procedures. Teachers can no longer "teach as they have been taught."

A program for classroom teachers' development has been prepared and revised. Currently it is in use in the State of Texas with nearly 2200 teachers. A program for the development of local resources (T_2 Manpower Development) was piloted in 1967 and has been revised for use again in the summer of 1968.

A program to develop regional resource staffs (T_3 Manpower Development) was also used for the first time in the summer of 1963. It has been revised for use in the summer of 1968.

These manpower development programs have been generated to implement one curriculum innovation -- an elementary school science program. Similar procedures are now being planned in mathematics, and could be generated for other curriculum areas.

RD 00 16

04.02

Author: Butts, David P.

Titles: OBSERVING, THE BASIS OF SCIENCE
STATING INSTRUCTIONAL OBJECTIVES
DESCRIBING OBSERVATIONS
COMPARING OBSERVATIONS
REASONING ABOUT OBSERVATIONS

Date: January, 1969

Publication: R&D Center mimeograph of first trial edition of five pilot instructional modules

Abstract: These five documents are the first to appear from a proposed series of 13 pilot modules from the Curriculum-Based Instructional Approaches task force in science education at the R&D Center for Teacher Education. Each of these five modules outlines behavioral objectives to result from use of the materials. The rationale of each section is explained. Materials needed for presentation are listed. Instruction procedures are abstracted.

RD 00 17
04.02

Author: Butts, David P.

Title: THE RELATIONSHIP BETWEEN CLASSROOM EXPERIENCES AND CERTAIN STUDENT CHARACTERISTICS

Date: 1968

Publication: R&D Center mimeograph, originally Science Inservice Project Research Report No. 7

Abstract: If curriculum is defined as organized experiences of students, and if such organized experiences are directed toward specific goals of cognitive behavior, then one could hypothesize that a longer continuous exposure to such a curriculum should result in observable differences in cognitive behavior. Analysis of related research suggests that cognitive behavior is related to attitude and achievement.

Specific student characteristics of intelligence, logical reasoning, achievement, divergent thinking, attending, and attitude were assessed among 168 4th, 5th and 6th grade students. These students were from two schools of contrasting socio-economic levels and had from 1 to 4 years of experience in the program, Science -- A Process Approach.

Regression analysis of covariance showed that the specific characteristics of intelligence achievement in science, ability to attend, and attitude perception of the potency of "library" are significantly different among students depending on the number of years of curriculum experience. Similar trends exist for reading achievement and verbal fluency. A less definite trend could also be discerned for logical reasoning in science and arithmetic problem solving. Examination of adjusted column means indicated a distinct contrast between years 1 and 2 versus years 3 and 4. This could be interpreted as an indication of curriculum effect.

Status: Not available, withdrawn from circulation by author.

RD 00 18

04.02

Author: Butts, David P.

Title: WIDENING VISTAS -- INSERVICE EDUCATION

Date: March, 1967

Publication: Science Education, 51 (2)

Abstract: An inservice teacher education program represents a costly investment in time, personnel and resources. Three assumptions should be recognized as essential for changing teacher's behavior. The first assumption is that knowledge of the innovation precedes and is essential to its implementation. The second is that commitment to the use of the innovative materials is essential to the acceptance of the innovation. The third assumption is that guidance in the use of the innovation is essential to its implementation.

RD 00 19

04.02

Authors: Butts, David P.
Jones, H.L.

Title: THE DEVELOPMENT OF THE TAB TEST

Date: March, 1968

Publication: Science Education, 35 (3)

Abstract: The development of the TAB Test included the description of a model of inquiry and an instrument to sample these inquiry behaviors of searching, data processing, verifying, discovering, assimilating and accommodating.

The TAB Science Test was designed to sample inquiry behaviors by presenting the student with a specific problem; a list of clues to help him solve that problem; and the opportunity to gather clue data when they are needed.

The subjects of the study were 2,519 fourth, fifth and sixth grade students in six Texas school districts. As identified by the instruments used in this study, the students represented a range of tested intelligence, science knowledge, socio-economic backgrounds, chronological age, and reading ability.

Validity and reliability coefficients for the test are described in the article.

RD 00 20

04.02

Authors: Butts, David P.
Jones, H.L.

Title: INQUIRY TRAINING AND PROBLEM SOLVING IN ELEMENTARY SCHOOL CHILDREN

Date: 1966

Publication: Journal of Research in Science Teaching, 1966, 4, (1), pp. 21-27

Abstract: The education of an individual includes his becoming familiar with usable concepts in addition to his knowing how to solve problems using these concepts. Could children benefit from directed instruction in the strategies of such problem solving? The evidence in this study indicates that elementary school children, if they are exposed to guidance that is designed to help them enhance their problem-solving behaviors, do show behavior patterns that are indicative of more effective problem-solving. It is also noted that no relationship appeared between tested intelligence and changes in problem-solving behavior. Agreement is lacking as to the relationship of tested intelligence, sex, biological age, or science factual knowledge in changes in problem-solving behavior. When the children who had received inquiry training were compared with those who had not, the evidence did not support the assertion that child's intelligence, his sex, his chronological age, or his science factual knowledge are significant factors in his benefiting from inquiry training. Much discussion has been given to the relationship between meaningful concept development and inquiry. The results of this study do not support the assertion that meaningful concept development results from inquiry training.

Children who were successful problem-solvers on the TAB Science Test were not able to apply the concept to different situations.

RD 00 21
04.02

Authors: Butts, David P.
Jones, H.L.
Cain, R.W.

Title: THE RELATIONSHIP BETWEEN STUDENT PROBLEM SOLVING AND TEACHER RATINGS

Date: February, 1967

Publication: Paper presented at the National Association for Research in Science Teaching

Abstract: Twelve teachers in four Austin, Texas, schools were asked to rank their students in terms of the criterion: "systematic problem solvers." The teachers were asked to rank their classes in terms of classroom performances and not in terms of past records or tested intelligence. Rankings were accomplished by the method of paired comparisons using multiple rank order. A computer format, based on that developed by Fullikeen and Tucker, was devised to analyze teacher rankings.

Classes were not grouped according to intelligence. Teacher rankings were focused only on those students who had matriculated the previous year in the same school. At the time of ranking, each class had finished one month of science instruction using the materials (Science - A Process Approach) developed by the American Association for the Advancement of Science. Each class consisted of (1) students with at least one year prior experience in a science instruction with the Science - A Process Approach materials, and (2) students with no prior experience in Science - A Process Approach.

If previous instruction in Science - A Process Approach did not influence teachers' opinions of student problem-solving behaviors, then the rankings of individual classes should reveal homogeneous distributions. Chi-square analysis of each ranking then should not reveal differences in class distributions of "systematic problem solvers." However, analysis indicated that in ten of twelve rankings, homogeniety was not found in the rankings; students with previous background in Science - A Process Approach instruction were found to be more often in the higher ranks.

Status: Paper not available.

RD 00 22
04.02

Authors: Butts, David P.
Montague, Earl J.

Title: BEHAVIORAL OBJECTIVES

Date: March, 1966

Publication: The Science Teacher, 35, 3

Abstract: A behavioral objective is a goal for or desired outcome of learning that is expressed as observable behavior or performance of the learner. If we first think of results desired and then plan experiences which will insure the success of these outcomes, we will be using behavioral objectives as a way of perceiving the teaching process. Through the implementation of behavioral objectives as a part of the teacher planning, we can improve both the learning experiences provided for students and our methods of evaluation. As a result, the desirable, general objectives will be translated into observable student performances.

RD 00 23

04.02

Authors: Butts, David P.
Raun, Chester E.

Title: A STUDY IN TEACHER ATTITUDE CHANGE

Date: 1968

Publication: R&D Report Series No. 6, originally published as an R&D Center mimeograph as Science Inservice Project Research Report No. 2

ERIC No.: ED 021 806

Abstract: Implementing curriculum change requires a careful analysis of those factors which affect its use. Recognizing that all teachers do not experience the same amount of change as a result of a teacher education program, what are the factors that contribute to the greatest attitudinal change? Using change in attitude as a criteria, what contributions are made by a teacher's previous knowledge in science, previous teaching experience, and perception of relevance of the program to the grade level taught or to the school location?

The sample of 60 teachers were from 8 school districts in grades 1-6 with a median of 7.75 years of teaching experience and a median of 11.5 hours of course work in science. Teacher attitudes were measured by the Semantic Differential.

Regression analysis of covariance showed that grade level is a relevant contributor to a positive change in the attitude of primary level teachers but not for those teaching at the intermediate level. Previous course hours in science is also a relevant contributor to more positive attitude for those teachers who have few or no previous hours of science. Pre-teaching experience and location of the school where the teacher teaches do not appear to be relevant contributors to attitude change.

RD 00 24
04.02

Authors: Butts, David P.
Raun, Chester E.

Title: A STUDY OF TEACHER CHANGE

Date: 1968

Publication: R&D Report Series No. 5, originally published as an R&D Center mimeograph as Science Inservice Project Research Report No. 1

ERIC No.: ED 021 805

Abstract: With the development of curriculum innovations there have also developed parallel programs for teacher education. The question of this study has been, with what type of teacher can a teacher education program be expected to produce the greatest change in both the perception of the innovation and the practice of the innovation? Analysis of related research indicated that some specific dimensions included competency in science, previous formal course work in science, previous teaching experience, and relevance of the teacher education program to classroom practice.

The sample included 19 teachers, grades one through six, in a school of predominantly middle-class Anglo children. The mean of the years of teaching experience for the group was 11.2 years while the mean of the course hours in science was 13.6 hours. A pre-post test design was employed at the beginning and end of the teacher education program to assess perception of the innovation, practice of the innovation and competence in science.

Analysis of inter-correlations indicates that the dimensions which are significantly related to a change in a teacher's perception of a curriculum innovation include competency in science, previous hours in science, and previous teaching experience. The study appears to suggest that a teacher education program can be expected to produce greatest change in perception of the innovation with a teacher who has a number of years of teaching experience but who has few hours of previous science courses. Analysis also indicates that the competency in science of a teacher affects change in the teacher's practice of the innovation.

RD 00 25

04.02

Authors: Butts, David P.
Raun, Chester E.

Title: THE RELATIONSHIP BETWEEN THE STRATEGIES OF INQUIRY IN SCIENCE AND STUDENT COGNITIVE AND AFFECTIVE BEHAVIORAL CHANGE

Date: 1968

Publication: R&D Report Series No. 8, originally published as an R&D Center mimeograph as Science Inservice Project Research Report No. 4

Abstract: Examination of the learning situation might suggest that if exposed to situations which focus on inquiry and student involvement, certain changes should occur in student cognitive and affective behaviors as a result of interacting with the strategies of inquiry of a curriculum.

Behavioral factors selected for study included problem solving, divergent thinking, tested intelligence, achievement, attending, and attitude toward science and scientists. From the curriculum materials of Science - A Process Approach, four strategies of inquiry in science were selected for evaluation: classifying, observing, using number relations, and recognizing and using space/time relations.

A sample of 95 regularly enrolled 4th, 5th and 6th grade students were utilized to test the hypothesis that children's performance in the strategies of inquiry in science result in observable and measurable changes in selected factors of cognitive and affective behavior. These students received five months of instruction in the strategies of inquiry.

Analysis of multiple linear regression indicated that the most efficient strategy of inquiry for bringing about behavioral change was that of "using numbers" followed by "classifying," "space/time relations," and "observing." There appeared to be no consistent pattern among grades and no sex differences in the relationship of the strategies of inquiry in science can be used to predict behavioral change in all of the behavioral criterion. This would indicate the specificity of the inquiry strategies to various dimensions of cognitive behavior.

RD 00 27

04.01

Author: Davis, O.L., Jr.

Title: LABORATORY COMPONENTS IN TEACHER EDUCATION,
OR PRACTICING WHAT WE PREACH

Date: August, 1969

Publication: R&D Report Series No. 18; accepted for publication by the Peabody Journal of Education

Abstract: Running throughout teacher education programs must be laboratory and clinical modules in which candidates actively encounter the demands of teaching. The situations must be specific and realistic and from which precise, descriptive feedback of teaching behavior may be derived and adjustments prescribed, practiced and refined. The Teaching Laboratory, as developed by The University of Texas Research and Development Center for Teacher Education, holds promise of offering many of these features. The Teaching Laboratory is described and discussed in its relation to ideal teacher education. Specific advantages of the Laboratory are outlined. A call is made for materials that can be used in Laboratory settings.

RD 00 28

04.01

Author: Davis, O.L., Jr.

Title: TEACHING LABORATORY MANUAL

Date: 1968

Publication: R&D Center mimeograph

Abstract: This mimeographed paper is a manual designed to introduce undergraduate secondary education majors to the Teaching Laboratory in the College of Education at The University of Texas at Austin. It presents a series of teaching tasks to be completed by students in the Teaching Laboratory course. The tasks are general in nature; that is, they are relevant to all subjects taught in secondary schools. The manual consists of an introduction and descriptions and evaluation criteria for the following teaching tasks:

1. The Short Lesson
2. Clarifying instructional objectives
3. Preparing instructional materials -- A-V laboratory
4. Interaction -- questioning probing, silence, reinforcing
5. Presenting -- introduction, A-V aids, summarizing
6. Refocusing
7. Team teaching and using small groups
8. Introducing your course

The manual was designed for student use in the Teaching Laboratory at The University of Texas, but may be of interest to educators who are planning similar teaching laboratories.

RD 00 29
04.01

Authors: Davis, O.L., Jr.
Morse, Kevin R.
Rogers, Virginia M.
Tinsley, Drew C.

Title: STUDYING THE COGNITIVE EMPHASES OF TEACHERS' CLASSROOM QUESTIONS

Date: April, 1969

Publication: R&D Report Series No. 3, reprinted with permission from Educational Leadership

Abstract: Questions asked by teachers have been given little specific notice. The cognitive emphases of teachers' questions, relating as they do to operational cognitive objectives, now merit systematic attention. Past studies of teachers' questions are surveyed. The current literature is reviewed. 24 references, 9 pages.

RD 00 26

04.01

Authors: Davis, O.L., Jr.
Smoot, B.R.

Title: EFFECTS ON THE VERBAL TEACHING BEHAVIORS OF BEGINNING SECONDARY TEACHER CANDIDATES' PARTICIPATION IN A PROGRAM OF LABORATORY TEACHING

Date: February, 1969

Publication: R&D Report Series No. 2, reprint of paper delivered at the convention of the American Educational Research Association, Los Angeles, California, February, 1969.

Abstract: One hundred forty secondary teacher candidates were divided into two groups, 85 enrolled in three sections of the first course in teaching at The University of Texas at Austin which incorporated the Teaching Laboratory component. Fifty-five subjects enrolled in three sections of the same course without the Teaching Laboratory component. Students in both groups were tested pre and post. Criterion were measured on the Laboratory Observation Schedule and Record (LOScAR), which yields 13 category scores and nine ratio scores. Data obtained from live observations of the pre and post teaching tests were subjected to analysis of covariance procedures employing the CDC 6600 computer program COVARY. Results showed that teacher candidates' verbal teaching behaviors can be modified in a Teaching Laboratory.

RD 00 30
01.00

Authors: Dingman, Harvey F.
Peck, Robert F.

Title: REANALYSIS OF DATA FILES: DEPENDENT HYPOTHESES AND A RECOMMENDATION

Date: 1968

Publication: Perceptual and Motor Skills, 1968, 27, pp. 69-70

Abstract: The reanalysis of data collected in large research projects presents problems. It appears that the hypotheses to be tested probably will not be independent. If the data are used to group Ss into typologies, subsequent research would be improved.

RD 00 31

05.00

Author: Eaton, Edward J.

Title: INDIVIDUALIZING INSTRUCTION

Date: April, 1966

Publication: R&D Center mimeograph of paper delivered at the Inservice Workshop for Orleans and Jefferson Parish on Educational Problems in Newly Desegregated Schools, New Orleans, La.

Abstract: Individualized instruction is defined as a process by which each learner is assisted in developing his own unique path, which may vary not only in rate, but in approach and content as well. There is concern at present inability to provide such programs. Students must be provided opportunities to receive instruction, each at his own level; to facilitate this, teachers must have an organization which moves emphasis from holding children together for instruction to consciously encouraging the greatest possible span of achievement. The Experimental Teaching Division of the UT R&D Center for Teacher Education examined what happens to teachers and students as they move into new organizations of instruction, seeking to develop an organization in which to train undergraduates in elementary education. Team Teaching was selected as the organization to be used in the schools. The Team Teaching organization is described. Individualized instruction within the Team Teaching organization is outlined. The need is for qualified teachers to implement such procedures, the challenge is to find ways to train such teachers. Efforts in these areas as conducted by the UT R&D Center are described.

Authors: Emmer, Edmund T.
Millett, Gregg B.

Title: AN ASSESSMENT OF TERMINAL PERFORMANCE IN A TEACHING LABORATORY: A PILOT STUDY

Date: 1968

Publication: R&D Center mimeograph

Abstract: The purpose of this study was to evaluate the effects of a sequence of microteaching tasks on the teaching behavior of secondary education students. Audio tape recorded lessons of two groups of students were compared. One group (n = 27) taught ten lessons in a teaching laboratory, using a sequence of instructional and learning tasks. A control group (n = 27) taught two lessons only. Instructions for both groups for the taped lesson were the same. Analysis of the final performance lessons indicated that the experimental group was rated significantly higher than the control group on three of four teaching dimensions (Determining, Readiness, Motivating, Evaluating); there was no difference on the dimension of Clarifying Objectives. Behaviorally, the experimental group had significantly greater amounts of use of student ideas, questions, directions, student response, and student initiation. The controls used more lecture. The results support continued use and experimentation with microteaching in undergraduate teacher preparation. Findings should be of interest to teacher educators and researchers in teacher education.

RD 00 33
03.02

Author: Fuller, Frances F.

Title: BEHAVIORAL SCIENCE FOUNDATION FOR ELEMENTARY EDUCATION: COURSE CONTENT ORDERED BY EMPIRICALLY DERIVED CONCERNS SEQUENCE OF PROSPECTIVE TEACHERS

Date: January, 1967

Publication: R&D Center mimeograph

Abstract: In another article, "Concerns of Teachers: A Developmental Conceptualization," a sequence of teachers' concerns is posited. This paper summarizes briefly this teacher concerns sequence and shows what course content may be related to each concern stage. A chart includes (1) covert concerns of prospective teachers, (2) developmental tasks associated with each concern, (3) sample education psychology course content associated with each concern. By means of the chart, the developmental tasks and sample educational psychology course content calculated to resolve the concerns are delineated for six concern stages. The purpose of this chart is to assist educational psychology instructors in choosing course content which related to the concerns of education students.

This chart may be of interest to educational psychology instructors planning introductory courses. This is a preliminary conceptualization for ordering teacher education course content. This is a working paper.

RD 00 34

04.03

Author: Fuller, Frances F.

Title: CONCERNS OF TEACHERS: A DEVELOPMENTAL CONCEPTUALIZATION

Date: April, 1969

Publication: American Educational Research Journal, p. 207

Abstract: The concerns of teachers, i.e., the problems and tasks to which they address themselves, are posited to occur in three phases. Pre-teaching concerns are amorphous or not related to teaching. Early teaching concerns focus on self or self protection and may be overt or covert. Late concerns focus on pupils and outcomes of teaching. Eleven studies are reviewed which support this conceptualization. It is proposed that research on teaching consider concern phases and that teacher preparation experiences be selected and ordered according to systematically surveyed teacher concerns in teacher populations served.

RD 00 35

03.02

Author: Fuller, Frances F.

Title: MECHANICAL AIDS TO QUANTIFICATION OF INTERPERSONAL BEHAVIOR

Date: 1966

Publication: Proceedings of the XVIII International Congress of Psychology, III, p. 276

ERIC No. ED 011 595

Abstract: The equipment and methods used to obtain and project 8mm sound films of spontaneous, nonsimulated samples of interaction between student teachers and pupils were described. The special equipment to be used by observers while judging and rating the interactions recorded in the films is also described. Films were made of 15-minute lessons presented in actual classroom situations by university students between the ages of 20 and 25 to classes of young children from 6 to 13 years old. The films were obtained to determine whether or not formal instruction in teacher training institutions is adequately related to the problems later faced in the actual teaching situation. The primary purpose of the filming technique is to provide better feedback to student teachers. The author suggests that films of this kind could be of value in computer-assisted instruction and for use in place of a real class or subject to provide a means for student practice.

Status: Out of print and unavailable, replaced in bibliography by Report Series No. 14, "Mechanical and Electronic Equipment to Facilitate Behavior Description."

RD 00 36

03.02

Authors: Fuller, Frances F.
Bown, Oliver H.

Title: INNOVATIONS IN COUNSELING TEACHERS

Date: 1968

Publication: Innovations in Counseling, Van Atta, R.E. (editor), The University of Texas, pp. 41-47

Abstract: If counselors must make a choice between providing counseling for students or for teachers, they should opt for teachers. This chapter summarizes briefly some reasons why counseling is appropriate and necessary for teachers. It describes publications available from the R&D Center for Teacher Education, including publications which may assist counselors in working with teachers.

RD 00 37

03.02

Authors: Fuller, Frances F.
Bown, Oliver H.

Title: THE TEACHER'S EMOTIONAL DEVELOPMENT

Date: 1966

Publication: *Look Toward Tomorrow*, The Hogg Foundation for Mental Health, The University of Texas at Austin, pp. 17-24

Abstract: Subtitled "The Church, Parents and Teachers Work for Mental Health of Children," *Look Toward Tomorrow* includes three articles, of which "The Teacher's Emotional Development" is one. Focusing on the teacher as a person, case material illustrates ways in which different kinds of teachers can help different kinds of children to cope. It describes how church school teachers can secure support for themselves and give support to pupils and parents of pupils.

RD 00 38
03.02

Authors: Fuller, Frances F.
Bown, Oliver H.
Garrard, Judith

Title: INFLUENCE OF PSYCHOLOGICAL FEEDBACK ON EMPIRICALLY DERIVED COVERT CONCERNS OF STUDENT TEACHERS

Date: 1967

Publication: R&D Center mimeograph of paper presented at meetings of the American Educational Research Association

Abstract: Statements (N = 4633) in typescripts of 42 hours of tape recorded seminars of two groups (N = 6, N = 8) of student teachers meeting for 12 weeks with one or two counseling psychologists, were categorized by covert concern topic. A six-stage concerns sequence, replicated with a third similar group (N = 8), ranged from beginning concern with self-protection (school power structure, class control, content competence, supervisors' evaluations, etc.) to later concern with pupil experiencing (content relevance, interaction, etc.).

Using Maslow's hierarchy of needs, it was hypothesized that (1) in non-counseled groups, concern with self (stages I through IV) would appear early and concern with pupils (IV through VI) would appear late, and (2) counseled groups would have fewer worries related to self protection and more worries related to pupil learning than non-counseled groups.

Hypothesis No. 1 was partially confirmed. In non-counseled groups, stage I and II concerns appeared early; stage IV and V concerns were infrequent both early and late; stage VI concerns did not appear at all. Hence late stage expected frequencies did not justify either chi square or Fisher's exact test. This finding is consistent with previous empirical studies of student teachers' concerns.

Hypothesis 2 was confirmed. A different, essentially random group of non-volunteers (N = 13) from the same population was required to have, one year before student teaching began, a psychological test interpretation, individual counseling and film feedback (seeing their own sound films). When blind ratings of anonymous concerns secured in the middle of the student teaching semester were compared, counseled student teachers had significantly fewer self-protective worries and more pupil-learning worries than the three non-counseled groups ($N_1 = 26$, $N_2 = 16$, $N_3 = 16$) (chi square + 21.59, $p < .001$).

RD 00 39

03.02

Authors: Fuller, Frances F.
Bown, Oliver H.
Peck, Robert F.

Title: CREATING CLIMATES FOR GROWTH

Date: 1967

Publication: Hogg Foundation for Mental Health monograph, 35 pages softbound

Abstract: This monograph reports in layman's language some findings of the Mental Health in Teacher Education Project of The University of Texas and the UT Personality Research Center. Based on intensive case studies of individual prospective teachers and groups of young teachers, it describes ways in which teachers can come to know pupils, form hypotheses about children's behavior and test these hypotheses in the classroom. It describes how administrators can give support to teachers by verbalizing policies explicitly, understanding teachers' concerns and accepting diversity among teachers and pupils.

This booklet has been found to be of interest to prospective teachers, particularly to those beginning an undergraduate major in elementary or secondary education.

RD 00 40

03.03

Authors: Fuller, Frances F.
Melcer, Donald J.
Albrecht, Dorothy

Title: MECHANICAL AND ELECTRONIC EQUIPMENT TO FACILITATE BEHAVIOR DESCRIPTION

Date: December, 1968

Publication: Classroom Interaction Newsletter, Vol. 4, No. 1, pp. 4-12; R&D Report Series No. 14

Abstract: Mechanical and electronic equipment developed by the Texas R&D Center for observing classroom interaction systems are described. The Coding Desk (Snake Coffin), Tally Guide and the Modified Flexowriter are described and illustrated. Construction and use are briefly outlined, references are given for complete plans and instructions. Three figures, three references.

RD 00 41
03.02

Authors: Fuller, Frances F.
Menaker, Shirley L.
Peck, Robert F.
Bown, Oliver H.

Title: INFLUENCE OF COUNSELING AND FILM FEEDBACK ON OPENNESS TO PUPIL FEEDBACK IN ELEMENTARY TEACHERS' FILMED BEHAVIOR

Date: 1967

Publication: Proceedings of the 75th Annual Convention of the American Psychological Association, 1967, pp. 359-360

Abstract: Psychoterapeutic systems derived from psychoanalytic-learning and from client-centered models both predict that S's openness to environmental feedback will increase in the course of therapy. It was hypothesized here that counseled teachers would become more open to feedback from pupils than control teachers, specifically that counseled teachers would decrease their lecturing, directing and encouraging, and increase questioning, accepting ideas and feelings and correcting, more than non-counseled controls. One control group (N = 19) was compared with three pooled experimental groups (N = 19, N = 20, N = 19) receiving different combinations of counseling and feedback. Both pre-post changes and experimental-control differences were observed in coding sound films of teaching. At the end of the preparation, the total group lectured less, accepted pupils' ideas more, corrected more and asked more questions and became more indirect than before preparations. Although both controls and experimentals lectured less and questioned more post than they had in pre films, the pooled experimental group changed significantly more than controls on both lecturing and questioning. Other absolute pre-post change differences were in the expected direction. Behavior change was not related in simple linear fashion to the amount of feedback given, but teachers who received feedback decreased lecture and increased questioning significantly more than controls and became in these behaviors more open to feedback than non-counseled teachers.

RD 00 42
03.02

Authors: Fuller, Frances F. (Editor)
Peck, Robert F.
Bown, Oliver H.
Menaker, Shirley L.
White, Meda M.

Title: EFFECTS OF PERSONALIZED FEEDBACK DURING TEACHER PREPARATION ON TEACHER PERSONALITY AND TEACHING BEHAVIOR

Date: 1969

Publication: R&D Report Series No. 4, final report of Project No. 5-0811, Grant No. OE 3-10-032, Personality, Teacher Education and Teaching Behavior

Abstract: The depersonalization of undergraduate education is an issue on which national attention has become focused. The purpose of this study, begun in 1962, was to test the effects of a personalized program of teacher education on the personality and behavior of prospective teachers in undergraduate preparation. The personalized treatments used were (1) individual counseling based on psychological assessment using instruments developed in a previous research effort, (2) film feedback (each teacher saw with a counselor a sound film of herself teaching), (3) situation feedback (teachers were either placed in student teaching situations tailored to their needs or given feedback about their student teaching situation).

Subjects were 96 elementary and 78 secondary undergraduate education majors, each divided into one control and three experimental groups. One of the experimental groups received counseling only, one received counseling plus film feedback and the third received counseling, film feedback and situation feedback.

Criteria were personality instruments (sentence completion, self-report instruments and projective instruments), and coded and rated sound films of teaching. These yielded 75 measures, each used in turn as the dependent variable in a two-factor (trials by treatments) analysis of variance designed. The largest number of changes observed occurred over the period of preparation in the group as a whole. In addition, when controls were compared with the pooled experimental group, feedback teachers changed more than controls in directions generally deemed desirable: increases in self-confidence, self-perceptions of persistence, self-reliance and ability to withstand stress; increase during actual teaching in questioning pupils and decrease in lecturing to pupils. These and other changes observed were toward behaviors typical of in-service teachers.

The report describes the treatments used, including case material. The report may be of interest to researchers in counseling and teacher education and to persons planning teacher education programs.

Authors: Fuller, Frances F.
Pilgrim, Geneva H.
Freeland, Alma M.

Title: INTENSIVE INDIVIDUALIZATION OF TEACHER EDUCATION

Date: 1967

Publication: 1967 Yearbook of the Association for Student Teaching, Dubuque, Wm. C. Brown, pp. 262-328

ERIC No.: ED - 011 - 603

Abstract: This anecdotal report presents some experiences of the student teachers who took part in a project devised to find ways to prepare student teachers to be ready to learn to teach at the beginning of their student teacher period instead of at the end. "The Personality, Teacher Education, and Teacher Behavior Research Project" combined a research study and a demonstration project into one program that was conducted as a part of the regular, ongoing operations of The University of Texas. The project sought to devise ways of using group therapy techniques to meet the concerns of prospective teachers and to help them cope with their personal development tasks. Three kinds of procedures were used -- counseling, instructional, consultative. Individual counseling on a voluntary basis offered psychological assistance to the prospective teachers. Group counseling was tried and then replaced with a counseling-oriented educational psychology course accompanied by junior-year observation and teaching. Test interpretation was made available to all prospective teachers. Assessment instruments were devised to assess the personality and mental health of the students at various points. All participants in the study, students, counselors, psychologists, instructors and cooperating teachers, were tested, filmed and evaluated. At the time of reporting, different kinds of feedback from test interpretation, films and counseling were being studied. Future research is planned to see if teachers can apply the developed therapy techniques in the classroom to help the growth of nondisturbed children.

RD 00 44
03.02

Authors: Fuller, Frances F.
Veldman, Donald J.
Richek, H.G.

Title: TAPE RECORDINGS, FEEDBACK AND PROSPECTIVE TEACHERS' SELF EVALUATION

Date: 1966

Publication: *Alberta Journal of Educational Research*, 1966, 12, pp. 301-307

Abstract: Although tape recordings have long been an accepted part of professional preparation in counseling and psychotherapy, and have more recently been introduced into teacher preparation, no empirical investigations have been reported concerning the influence of listening to such tapes and of accompanying feedback from supervisors and other observers upon changes in trainees' self-evaluations. The purposes of the present investigation were to discover (1) whether discrepancies between interns' self-ratings and ratings of observers change when interns listen to their tapes and receive feedback from observers, (2) whether such changes also occur after listening to tapes alone without other feedback. In agreement with reports in the clinical literature, feedback rather than tape listening alone was the crucial variable. Results support the hypothesis that use of tape recordings in combination with person-to-person feedback modifies teacher trainee behavior in the direction of greater concordance with the perceptions of others. Further research on the impact of feedback on self-perception is underway using a technique involving a newly marketed (1966) 8mm film which is pre-stripped for sound (see Fuller, et al, Effects of Personalized Feedback During Teacher Preparation on Teacher Personality and Teaching Behavior).

RD 00 45
03.02

Authors: Fuller, Frances F.
White, Meda M.

Title: AFFECTIVE INTERACTION: THE SEQUENCE OF FILMED TEACHER-PUPIL BEHAVIORS

Date: 1967

Publication: R&D Center mimeograph

Abstract: Seventy-nine female elementary education undergraduates were sound filmed at the end of senior student teaching. Each one-second time segment of these sound films was categorized using an adaptation of the Amidon Flanders Interaction Analysis System. Categories were divided into warm, neutral and cold. Teacher-pupil response pairs (a teacher statement plus a pupil response or a pupil statement plus a teacher response) were placed in a frequency table. The most frequent affective response of pupils to teachers was the affect similar to the teachers' response. Conversely the emotion of the teacher behavior which followed pupil behavior was most likely to be similar to that of the preceding pupil behavior. In short, warm teacher behavior was most likely to be followed by warm pupil behavior, neutral by neutral and cold by cold. Similarly, warm pupil behavior was most likely to be followed by warm teacher behavior, neutral by neutral and cold by cold behavior. An affective symbiosis is hypothesized to exist between teachers and pupils. This is a working paper only.

RD 00 46

05.00

Authors: Gallessich, June
Schmidt, Linda M.

Title: SCHOOL ADJUSTMENT OF FIRST-GRADERS IN TEAM-TEACHING AND SELF-CONTAINED CLASSROOMS

Date: August, 1968

Publication: R&D Center mimeograph of paper presented before the 76th Annual Convention of the American Psychological Association

Abstract: An investigation was made of the school adjustment of first-grade pupils in team-teaching and self-contained classrooms. Subjects from four schools were randomly chosen: 40 S's from a predominantly Latin team-teaching school, 40 S's from an Anglo team-teaching school, and 40 from each of two control schools using self-contained classes with populations ethnically and socio-economically comparable to the experimental schools. Instruments chosen to assess adjustment were the Picture Anxiety Test (PAT) and the Pupil Observation Survey Report (POSR). The Latin first-grade pupils were found to be significantly more anxious than Anglo children and perceived their teachers less favorably than their Anglo counterparts. Girls in self-contained classrooms were found to be more anxious than girls in team-teaching settings. On the POSR there was no differentiation of teacher perception according to teaching organization, although boys perceived their teachers less favorably than girls.

RD 00 47

03.02

Author: Garrard, Judith

Title: CONCERNS OF STUDENT TEACHERS: A REVIEW OF THE LITERATURE

Date: April, 1966

Publication: R&D Center mimeograph

ERIC No. ED - 011 - 604

Abstract: A review of the literature on the concerns of student teachers was made and the results summarized. Parts 1 and 2 reported on empirical and speculative studies respectively. The student-teacher questionnaires located in the empirical studies are appended to the report. Part 3 consists of studies having relevance to research and development in teacher education. A bibliography containing a list of journals and specific articles checked is attached.

Status: Limited availability; reproduction service charge ($0.80)

2

RD 00 48

03.02

Authors: Garrard, Judith
Fuller, Frances F.

Title: STUDENT TEACHERS' PERCEPTIONS OF THEIR PROFESSIONAL PREPARATION DURING DEPTH INTERVIEWS

Date: 1966

Publication: Proceedings of the 74th Annual Convention of the American Psychological Association, pp. 265-266

ERIC No.: ED-011-592

Abstract: When confidential, hour-long, semistructured, depth interview case notes of psychologists' interviews with elementary ($N = 33$) and secondary ($N = 24$) prospective teachers who had taught in middle-class schools, were categorized and rated to determine perceptions of one control group ($N = 12$) and three feedback condition groups ($N = 13$, $N = 13$, $N = 19$), increasing psychological feedback from tests and own-film viewing was found to increase preference for middle-class schools and decrease preferences for lower-class schools ($p < .001$) and to differentiate groups on other criteria. Findings are consistent with both Festinger's Dissonance Theory and Ryan's teacher effectiveness research.

RD 00 49
03.02

Authors: Jackson, Mary Lynn
Fuller, Frances F.

Title: INFLUENCE OF SOCIAL CLASS ON STUDENTS' EVALUATIONS OF THEIR TEACHERS

Date: 1966

Publication: Proceedings of the 74th Annual Convention of the American Psychological Association, pp. 269-270

Abstract: The Pupil Observation Survey Report, a 38-item rating scale, was administered to pupils of 26 female student teachers in secondary schools. Female pupils tended to perceive teachers as more confident or poised. Middle-class pupils rated teachers as more pleasant and effective than did lower-class pupils. Lower-class pupils tended to like teachers in personal terms more than did middle-class pupils. Lower-class pupils tended to perceive all teachers as more authoritarian. Lower-class teachers were evaluated as more authoritarian by all pupils but especially by lower-class pupils. Pupils seemed to prefer a teacher of a different social class except in evaluations reflecting effective communication. There, teachers of the same social class as pupils were rated higher by their pupils.

RD 00 50
03.03

Authors: Lamkin, B.D.
Veldman, D.J.

Title: EVALUATING TEACHING EFFECTIVENESS WITH A SITUATIONAL TASK RMM-5

Date: September, 1967

Publication: Research Methodology Monograph No. 5

Abstract: This monograph is based on the doctoral dissertation of the first author. It surveys the literature concerning methods of evaluating teacher effectiveness, particularly by using measures of pupil progress. The development of a standard situational task for classroom teachers is then described. The task centers on a list of 45 vocabulary items. Students are given a multiple-choice test over the list, and are then given the definitions. After the teacher attempts to maximize their learning for 20 minutes, the multiple-choice test is given again in order to measure the amount of gain.

This procedure was used in 24 seventh-grade classes in an Austin, Texas, junior high school. Six classes were used for each of the following teacher conditions: (1) experienced regular classroom teacher, (2) senior student teacher, (3) junior teacher aide, (4) no teacher (self study). In addition, the four conditions were equally divided among three academic subject areas: (1) English, (2) mathematics, and (3) social studies.

A series of 14 regression equations were compared to test experimental hypotheses. Gain was greater for the experienced teachers than for either student group, which in turn were superior to the self-study condition. The experienced teachers also appeared to be most successful with the brighter students in their classes. Subject matter area did not appear to be related to the gain variable, or to interact with the teaching conditions. Considerable variation was also noted between teachers within the teaching conditions.

The technique was considered promising as a tool for studying the impact of particular teaching behaviors and teacher characteristics upon student performance, and is being employed in other experiments conducted by the R&D Center for Teacher Education.

Status: Not available; this paper has been withdrawn from circulation for an indefinite period by the authors.

RD 00 51
04.01

Author: Lundsteen, Sara W.

Title: MANIPULATING THE VARIABLE OF ABSTRACT QUALITY IN THINKING

Date: 1968

Publication: R&D Center mimeograph

Abstract: A purpose of this study was to determine if learning in a language arts curriculum designed to improve creative problem solving could be enhanced by training the subcapability of abstract quality in thinking. Thirty fifth-grade classes were assigned randomly to five treatment groups, three with a core program in common, yet with three varying additions: an abstract emphasis, problem-solving practice, or listening training. The two control groups were distinguished by presence or absence of pretests and program consisting of state-adopted materials. Children were given a battery of 12 pretests and (23 weeks later) posttests. Hypotheses regarding transfer of abstract training were partially confirmed: problem-solving contrast ($p < .02$); general listening contrast ($p < .05$) -- both with intact class as *df*; reading contrast ($p < .05$) -- with pupil as *df*, low IQ level (62-91). There was no consistent pattern for sex differences or interaction.

Status: Limited availability at author's discretion; paper being revised.

RD 00 52

04.01

Author: McGuire, Carson

Title: BEHAVIORAL SCIENCE MEMORANDUM NO. 10

Date: July, 1966

Publication: R&D Center mimeograph

Abstract: BSR No. 10 was the initial venture into annotating selected books, articles, and monographs for the guidance of busy instructors responsible for teacher education. The responses to the annotated bibliographies have been positive. Apparently some sort of handbook for learning through guided discovery is a possible means of orienting college professors and students in teacher education to the realization that the major objective in the educational encounter is not soaking up information for later "selective regurgitation" in examinations but the acquisition of the intellectual capabilities necessary to relate new information as it develops to the underlying principles of a field of study. (137 annotated entries)

Status: Limited availability; reproduction service charge ($1.00)

RD 00 53
04.01

Author: McGuire, Carson

Title: ADDENDA TO BEHAVIORAL SCIENCE MEMORANDUM NO. 10

Date: September, 1966

Publication: R&D Center mimeograph

Abstract: BSR 10-A is a set of annotated references which could have been further edited and then grouped under rubrics such as "Child and Human Development," "Human Development and Education," "The Teaching-Learning Process." School people will find that Arensberg & Kimball (1965), Bruner (1961), Goslin (1963), Krumboltz (1965), Piaget (1961), Silberman (1966), Spindler (1963), as well as Wann, Dorn, & Liddle (1962) are interesting reading. The annotated entries represent 45 articles, 26 brief reviews of books (including a number of paperbacks), and one monograph.

Status: Limited availability; reproduction service charge ($0.70)

RD 00 54

04.01

Author: McGuire, Carson

Title: BEHAVIORAL SCIENCE MEMORANDUM NO. 11

Date: August, 1966

Publication: R&D Center mimeograph

Abstract: BSR Memo No. 11 is a compilation of ideas advanced by Professor McGuire in a summer seminar on "Human Development" or "Developmental Social Psychology" at The University of Texas. Sections deal with the basic assumptions underlying the study of child and human development, basic concepts of human development, the meaning of Piaget's work, a new zeitgeist in U.S. education, the nature of cognition as a psychological phenomenon, theories of personality and behavior, conceptions of intrinsic motivation, and miscellaneous topics of interest to seminar participants.

Status: Limited availability; reproduction service charge ($0.60)

RD 00 55

04.01

Author: McGuire, Carson

Title: BEHAVIORAL SCIENCE MEMORANDUM NO. 12

Date: 1968

Publication: R&D Center mimeograph

Abstract: BSR Memo No. 12 reviews the literature bearing upon early childhood education and the assessment of the educational encounter in the years to come when a substantial proportion of boys and girls begin school at three, four, or five years of age. The selections take account of principles and supporting research which has a bearing upon future educational policies, necessary curriculum revision, preparation of teachers, and the problems of initial assessment as well as continuing evaluation of a learner's ability to grasp, transform, and transfer what he is in the process of learning. The annotated entries include 51 articles, 12 chapters from yearbooks, 28 selections from books and monographs, and brief reviews of 23 pertinent books. Some fresh thoughts of participants in the seminar reported in BSR Memo No. 11 are included.

Status: Limited availability; reproduction service charge ($1.15)

RD 00 56

04.01

Author: McGuire, Carson

Title: BEHAVIORAL SCIENCE MEMORANDUM NO. 13

Date: 1968

Publication: R&D Center mimeograph

Abstract: BSR Memo No. 13 has been prepared to guide college instructors responsible for junior-level professional courses in educational psychology or the behavioral science foundations of education. Strengths and weaknesses of 17 textbooks and 24 books of reading are presented together with brief reviews of 56 other books which have a bearing upon the education of prospective elementary and secondary school teachers. To guide the instructor and the teacher-to-be in learning through guided discovery, 74 articles, selections from 14 monographs, and two chapters from yearbooks have been annotated for key ideas and principles underlying the current renaissance in American education.

Status: Limited availability; reproduction service charge ($1.95)

RD 00 57

04.01

Author: McGuire, Carson

Titles: CHANGING EDUCATION BURSTING AT THE SEAMS
TRANSFORMATIONS IN THE COLLEGE OF EDUCATION
CENTER-AND-NETWORK DESIGN FOR THE RESHAPING OF TEACHER EDUCATION

Date: 1966

Publication: The Education Newsletter, 8 (1)

Abstract: The signed articles by the Editor and other contents of the eight-page Newsletter reflect transformations in the pattern of teacher education and in underlying research and development programs being carried on by faculty members and graduate students during the period in which the Research and Development Center for Teacher Education was being set up under the direction of Robert F. Peck and Oliver H. Bown.

Status: Limited availability; reproduction service charge ($0.20)

RD 00 58
04.01

Author: McGuire, Carson

Title: POTENTIAL DEVELOPMENTS IN TEACHER EDUCATION

Date: May, 1967

Publication: R&D Center mimeograph

Abstract: A forecast of forseeable changes in teacher education, when overseas commitments reduce federal expenditures on military services and American industry turns to education as a "market" and a "partner" in maintaining the level of Gross National Production, is presented. (1) Behavioral Science Foundations of Education - Most professional fields (e.g., medicine, dentistry, nursing, engineering) require an underlying body of knowledge and methods of inquiry for professional preparation. Eventually, teachers will incorporate the study of man into what is taught as English as well as the study of man's institutions into the Social Studies to make the educational encounter meaningful to children and adolescents concerned about themselves and the world in which they are living. (2) Early Childhood Education - Beginning formal education is going to force a total reconstruction of the curriculum in schools and for teacher education. (3) Pre and Early Adolescent Education - Apparently there is a cultural as well as biological puberty, the consequences of which have not been recognized in contemporary curricula in schools and for teacher education.

Status: Out of print and unavailable

RD 00 59
04.01

Authors: McGuire, Carson
Fruchter, Benjamin

Title: A DISCRIMINATION MODEL FOR MULTIVARIATE Q REPRESENTATIONS

Date: October, 1967

Publication: Multivariate Behavioral Research, 2(4), pp. 507-528

Abstract: The proposed discrimination model for Q representation is a generalization of the method of unfolding in an algebraic rather than geometric field. Placements of Q statements relative to one another in joint space so as to form a quasi-normal distribution of the q stimulus items are assigned Q values which form a bounded set of symbols with specified order in arithmetic progression; for example, a finite set from "one" to "nine" wherein "five" is the midpoint of an ordered metric within persons. An algebraic theory of numbers permits mathematical operations to be carried out with sets of such symbols. Using illustrative data, a mathematical model is developed for the analysis of Q values, each of which represents the intersect of two or more dimensions of behavior structured into a Q set, and for testing its stability, consistency, and reliability. The Q check procedures permit comparisons among individuals and subsamples of population samples. The 32 self reference statements appear in an appendix, "The Person I Am" Q Sample, and the Q values assigned to each statement when a person sorts them into nine stacks with "tied ranks" so as to form a quasi-normal distribution as illustrated in Table 1 may be entered for each placement of the items relative to one another. Each self-descriptive statement has two facets; namely Dimensions of Behavior (being, doing, relating to, evaluating) and Psychological Orientations (feeling, depending, reality testing, questioning). Thus the summary of replicated Q values serves to reflect faceted self-descriptive statements and Q-values attached to each of the 16 item pairs. The technique is useful in the introduction of prospective teachers and other college students to a way of representing "Who I am" operationally and to variations among people in personality makeup.

RD 00 60
04.01

Authors: McGuire, Carson
Rowland, Thomas (editors)

Title: BEHAVIORAL SCIENCE FOUNDATIONS OF EDUCATION

Date: 1967

Publication: R&D Center mimeograph

Abstract: The six sections of this study guide being used experimentally in junior pre-professional teacher education courses are to be revised and edited after initial experiences with the a approach to become a "Handbook for Guided Discovery" replacing the usual textbooks most of which have become a compendium of information under seemingly discrete rubrics. Part I provides a set of epistemic (knowledge-ordering) organizers for discovering inter-related facets of the behavioral sciences which bear upon the educational encounter together with the teachers and students, the "hardware" and the "software," associated with it. Parts II to V represent ways in which prospective teachers can acquire, under supervision, the kinds of knowledge attainable only through experiences (real and vicarious). Part VI is an annotated bibliography of journal articles, books, chapters of yearbooks, monographs, and reports of work in life setting calculated to arouse the necessary epistemic curiosity and create the limited cognitive conflict which leads to personal inquiry.

Status: Limited availability; reproduction service charge ($10.00)

RD 00 61

04.01

Authors: McGuire, Carson
Rowland, Thomas

Title: THE DEVELOPMENT OF INTELLIGENT BEHAVIOR I. AN INTRODUCTION TO JEAN PIAGET

Date: January, 1968

Publication: Psychology in the Schools

ERIC No.: ED 013 986

Abstract: The contribution made by Piaget to knowledge of the development of children is summarized. Piaget's influence on Berlyne and other psychologists, the research methods used by Piaget, and the concepts he formulated are briefly described. The goal of his research conducted at Geneva is identified as the discovery of the successive stages in the development of intelligence. The authors find that Piaget describes these stages as occuring in constant, invariant sequence but with no time boundaries in contrast with the Gesellian view that stages have firm upper and lower time limits. The authors state that the maturationist view of fixed intelligence and predetermined development is no longer valid. The importance of the finding by Piaget that the child's intelligence is qualitatively different from adult intelligence is presented. Various abilities and concepts acquired by children in the chronologically successive stages of development are described. The authors also comment that Piaget is a unique and important individual whose theories should be understood at least minimally by teachers.

Status: Availability from R&D is limited; may be ordered from ERIC Reproduction Service (hardcopy, $0.60)

RD 00 62

04.01

Authors: McGuire, Carson
Rowland, Thomas

Title: THE DEVELOPMENT OF INTELLIGENT BEHAVIOR II.
CURIOSITY IN THE EDUCATIONAL ENCOUNTER:
A REPRESENTATION OF DANIEL E. BERLYNE

Date: April, 1968

Publication: Psychology in the Schools

ERIC No.: ED 013 987

Abstract: This paper presents a summary of Berlyne's thought about curiosity and cognitive conflict as motivational factors in knowledge-seeking behavior. The summary is based upon four of Berlyne's works that were selected as "core" to the development of his thought. This paper concentrates upon bringing out the significant differences of the selected works. The authors discuss Berlyne's classification of motivational factors, types of motivation of exploratory behavior, the determinants of exploratory behavior, the roles of selected factors (arousal, conceptual conflict, equilibrium, and information theory variables) as determinants of human perceptual curiosity, and epistemic (learning) behavior. The authors conclude that a knowledge of the effective use of curiosity in educational process is necessary for understanding intellectual processes and that the work of Berlyne is an important resource for those who wish to understand the use of curiosity in education.

Status: Availability from R&D is limited; may be ordered from ERIC Reproduction Service (hardcopy $0.85)

RD 00 63
04.01

Authors: McGuire, Carson
Simpson, Bert L.

Title: ASSESSMENT OF THE EDUCATIONAL ENCOUNTER: AN APPROACH TO PREPARING TEACHERS IN EARLY CHILDHOOD EDUCATION

Date: June, 1967

Publication: R&D Center mimeograph of the interim report of the AEE Project

Abstract: The AEE Project has been undertaken to determine the possibility of using ETS materials developed in "The New York City Project" as (1) instruments to assess the intellectual functioning of pupils entering schools, and (2) models of materials to be used in teaching "learning sets" together with concepts and skills necessary if Piaget's ideas and the work of Gagne (1962, 1965) are to be exploited in the preparation of teachers. This preliminary inquiry in a school with approximately equal numbers of Anglo, Latin and Negro American children has yielded a number of insights into the ways teachers as well as children of both sexes from different family backgrounds respond. Further inquiry is warranted to determine the cost/benefits outcomes of such a program. (14 references)

Status: Availability limited; reproduction service charge ($1.05)

RD 00 64
03.03

Author: Menaker, Shirley L.

Title: MANUAL FOR SCORING 18 SCALES FROM THE THEMATIC APPERCEPTION TEST

Date: 1966

Publication: R&D Center mimeograph

Abstract: A manual was developed for TAT data in order to quantify this narrative material so that one subject could meaningfully be compared with another. TAT data had traditionally been collected from teacher candidates in the College of Education at The University of Texas, to be used qualitatively by counselors in assessing the personality variables of the subjects involved. A method for quantifying the data would enable this "projective" material to be scored and used predictively with subjects engaged in research programs within the College.

A group of clinically trained raters examined the protocols of 174 elementary and secondary education majors. Protocols were five-minute, timed stories told to eight standard TAT cards administered by slide projector in a group session.

Each rater prepared a list of content areas he or she found present in the stories, which might be subject to rating. Raters then met to compare and combine areas which could best be seen as opposite poles of a single continuum. Eighteen areas of content were set up to be rated, each area rated on a seven-point scale. Paragraphs describe the dimensions of each content area; short, descriptive statements were included illustrating each of the seven scale points for each scale; and, for certain scales, example stories were included for each scale point.

Tests were run on the reliability of rating following the instructions in the manual. For a sample of 95 protocols from elementary education majors (eight stories on each protocol), interrater reliability ranged from .33 to .97, with an average of .56 across the 18 scales. For actual ratings, pooled ratings from two raters were used, and the reliability of these pooled ratings ranged from .50 to .98, with an average of .71. The manual should be of interest to psychological, educational and counseling personnel engaged in projective testing.

RD 00 65

03.03

Authors: Menaker, Shirley L.
Veldman, Donald J.
Peck, Robert F.

Title: PREDICTION OF MENTAL HEALTH THROUGH COMPUTER SCORING OF A SENTENCE COMPLETION TEST

Date: 1966

Publication: American Psychologist, 21, p. 634

Abstract: An investigation was undertaken to determine how successfully an overall adjustment rating made by trained clinical raters could be predicted by means of a computer program for scoring adjustment which used only the data from a one-word-sentence-completion instrument. Subjects for the study were 69 female college seniors at The University of Texas. The adjustment ratings on these subjects made by the clinical raters were based on an extensive assessment battery, which included the sentence completion instrument. Computer scoring of "adjustment" from the sentence completion instrument alone entailed the compilation of a mental health dictionary to be used by the computer. This dictionary was compiled from a sentence completion data bank of a large independent sample.

Adjustment scores obtained from the computer scoring of the sentence completion test correlated .55 with the clinically rated adjustment score. Upon investigation, it was found that clinically rated adjustment correlated highly with grade point average, while the computer-obtained score did not. The computer rating is based on weights assigned to individual words in the stem bank on the basis of their apparent relationship to deviant attitudes. The clinical adjustment rating, on the other hand, is based on the psychological opinions of human raters rating a much larger battery of projective data, who are correctly influenced by features such as grammar, spelling, word usage, organization, coherence, etc., when making their ratings of adjustment. The latter ratings are thus influenced more by general "ability" factors than are the machine ratings. It was apparent that an increase in predictive efficiency would result from a combination of the two variables: computer-scored adjustment and grade point average. The resulting multiple correlation with clinically rated adjustment was .73, which after shrinkage remained .725, a correlation coefficient approximating that which might be expected between skilled raters on a variable such as mental health.

The results suggest an inexpensive means of identifying well-adjusted and poorly adjusted people in the college population with considerable accuracy. This might prove useful in large-scale selection of college subjects for a research design in which it is advisable to control for mental health. Results should be of interest to psychological, counseling and educational personnel.

RD 00 66

03.03

Authors: Parker, G.V.C.
Veldman, Donald J.

Title: ITEM FACTOR STRUCTURE OF THE ADJECTIVE CHECK LIST

Date: October, 1968

Publication: Educational and Psychological Measurement (in press)

Abstract: An empirical study of the factor structure of the 300 Adjective Check List (ACL) items is described. Based on the data from 5,017 university undergraduates, three factor analyses were performed using (a) 2,805 males, (b) 2,212 females, and (c) total group. Factor extraction by the principal components method was followed by normalized varimax rotation, leading to the identification of seven factors, labelled: Social Desirability, Interpersonal Abrasiveness, Ego Organization, Introversion-Extroversion, Internal Discomfort, Intraception, and Social Attractiveness. Although the separate-sex varimax structures differed somewhat, re-rotation toward the total-group structure aligned the item vectors with very few exceptions. The relationships of the factors to standard ACL scales and their factors, were examined. The findings may be useful in further research concerning self-description and the organization of self-concept.

RD 00 67

01.00

Author: Peck, Robert F.

Title: CONTRIBUTIONS OF PSYCHOLOGY TO THE EDUCATION OF VOCATIONAL TEACHERS

Date: September, 1967

Publication: R&D Center mimeograph of paper presented at National Vocation-Technical Teacher Education Seminar

Abstract: Like most other sciences, psychology offers facts about the behavior of human beings, organizing concepts which help to explain behavior, and action systems which are designed to influence behavior in desirable ways. Concerning vocational education, three kinds of contributions from psychology are worth considering: (1) knowledge about the development of vocational behavior which may be useful to teachers of vocational education, (2) knowledge about prospective teachers which may be useful to teacher educators, and (3) new educational procedures which are proving effective in the training of teachers. Examples are cited from studies of teacher characteristics and experiments in personalizing teacher education conducted at the Texas R&D Center for Teacher Education. Evidence on career aspirations and values is also drawn from the Cross-National Study of Coping Styles and Achievement.

RD 00 68
01.00

Author: Peck, Robert F.

Title: HOW STUDENTS COPE WITH WORK PROBLEMS IN THE
U.S. AND ABROAD

Date: December, 1967

Publication: R&D Center mimeograph of paper presented at the American Vocational Association Annual Meeting

Abstract: What styles of action do boys learn to use in tackling work problems? How are these different from what girls do? What particular coping styles are preferred in different cultures? What differences are there between working class and upper-middle class in their dominant coping styles? Such choices of strategies in dealing with tasks are related to school achievement, vocational aspirations, and to kinds of satisfactions young people seek in their work. By combining such measures of motivation and behavior style with measures of aptitude, better understanding and better prediction of individual achievement is sought. The study also seeks information about how children are influenced by family experiences in the development of their coping styles. This paper offers preliminary findings from a cross-national study of school children from eight countries. This work is the basis for an experiment now under way in the R&D Center for Teacher Education to test ways of training teachers to improve the coping effectiveness of their pupils.

RD 00 69

01.

Author: Peck, Robert F.

Title: THE RESEARCH AND DEVELOPMENT CENTER IN TEACHER EDUCATION -- A PARTNERSHIP OF SCHOOL SYSTEMS, STATE EDUCATION AGENCIES AND COLLEGES

Date: 1967

Publication: R&D Center mimeograph

ERIC No.: ED 011 598

Abstract: The work of the Teacher Education Research and Development Center, a long-term program of research, demonstration, and dissemination, was described. The administrative organization was also discussed along with the sets of factors in teaching behavior and child learning which the Center is undertaking to study. The Center is also conducting studies dealing with the two educational strategies of the self-contained classroom and the team-teaching format. Educational programs for the improvement of Spanish-speaking children, research on student teacher teaching techniques, administrative philosophy and practices, and cultural patterns are only a portion of the operations being conducted by the subdivisions of the Center.

Status: Out of print and unavailable. A later paper, Peck and Bown, "The Research and Development Center for Teacher Education," published as R&D Report Series No. 1, December, 1968, replaces this document.

RD 00 70

01.

Author: Peck, Robert F.

Title: WHY SHOULD WE TEACH ELEMENTARY SCHOOL CHILDREN ABOUT THE PRINCIPLES OF HUMAN BEHAVIOR?

Date: Spring, 1967

Publication: Journal of School Psychology

Abstract: Traditionally, children in the schools were taught to behave through authoritative control and moral exhortation. Because these methods were not efficient or completely effective, we have begun to examine the possibility of inducing habits of conduct by teaching children to understand why people act as they do. There are at least three lines of reasoning as to why this process should be started in the elementary schools.

I. (a) Childrens' attitudes and motivations are vital to their successful completion of school. (b) The single, most important influence on school retention is the degree to which the child feels accepted by his classmates. (c) Teaching children to understand the causes of behavior improves such agemate relations.

II. (a) The most frequent cause for discharge or demotion of adult workers is inability to work with other people. (b) Attitudes and habits of interpersonal relations are easiest to modify during early and middle childhood.

III. (a) Crime, divorce and mental illness spring from hostile alienation from people or from anxiety about their intentions. (b) Correction is easiest in childhood. (c) While instruction alone cannot cure these ills, it can help.

Lessons on behavior could be incorporated into existing subjects, such as social studies. Lengthy, special training will not be necessary. With appropriate curriculum materials, many naturally equipped teachers could introduce principles of human behavior into the elementary classroom.

RD 00 71
01.00

Authors: Peck, Robert F.
Bown, Oliver H.

Title: THE RESEARCH AND DEVELOPMENT CENTER FOR TEACHER EDUCATION

Date: December, 1968

Publication: R&D Report Series No. 1

Abstract: This is an overview of the history, the objectives and the program of the R&D Center for Teacher Education. Prior research and experimental education programs dating from 1958 are described; the Center's evolution during its first three years is briefly sketched. The integrated plan of operation which emerged during 1968 is outlined in detail. The program has two major aims: (1) Basic research on the effects of varied kinds of teacher education on actual teaching behavior and the effect of teaching behavior on child learning. (2) The development of a teacher education system composed of a diversified array of many relatively small instructional modules which would ultimately permit flexible, individualized teacher development. Conceptual guidelines and the structure of modules are described, as are the anticipated products of the program.

Status: This report is available in some quantities; orders for up to 10 copies free of charge are welcome.

RD 00 72
03.02

Authors: Peck, Robert F.
Bown, Oliver H.
Fuller, Frances F.
Menaker, Shirley L.

Title: A STUDY OF ELEMENTARY TEACHER TRAINING: EXPERIMENTAL-CONTROL GROUP COMPARISONS AND CHANGES OVER A TWO-YEAR TRAINING PERIOD

Date: 1967

Publication: R&D Center mimeograph

Abstract: This is an early report of the Personality, Teacher Education and Behavior Project. In September, 1962, investigators at The University of Texas initiated a five-year study on the effects of differing experimental treatments on the teacher trainees in the elementary school pre-service teacher training program. This program is begun in the junior year of college. Each subject was tested with a battery of projective tests at the beginning of the junior year and again, approximately 18 months later, after student teaching in the senior year. The tests administered were the Bown Self-Report Inventory (SRI), the Peck-Veldman One-Word Sentence Completion Test (OWSC), and the Directed Imagination Test (DI). In addition, each subject was filmed at the beginning of his junior year (practice teaching in an elementary school classroom) and again while teaching in his senior year during the student teaching semester.

The subjects were 79 elementary school teacher trainees. For major analyses, a control group of 20 subjects who had received all pre-post testing and filming but had received no additional treatment was compared with an experimental group of 59 subjects who had received varying and differential amounts of feedback. In general, the differences found between the filmed behavior of elementary teacher trainees before and after teacher training parallel the differences which other investigators have found between "average" and "superior" in-service teachers (pre-training similar to average, post-training similar to superior). The investigators had the opportunity to collect equivalent personality data from a small sample (N = 24) of in-service cooperating teachers at a local elementary school. In general, the mean performance of the elementary teacher trainees at the end of their training program, in contrast to their mean performance at the beginning of their training, was similar to the mean performance of this group of in-service teachers. Among the personality tests, the DI proved most sensitive to differential changes over time between Experimental and Control subjects. In contrast to the Controls, Experimentals became (on the DI) more organized, imaginative, optimistic, focused on the individual pupil and more sure of their coping ability.

Status: Out of print; see Fuller, et al, Effects of Personalized Feedback During Teacher Preparation on Teacher Personality and Teaching Behavior.

RD 00 73

01.00

Authors: Peck, Robert F.
Dingman, Harvey F.

Title: SOME CRITERION PROBLEMS OF EVALUATION OF TEACHER EDUCATION

Date: 1968

Publication: Psychological Reports, 23, p. 300

Abstract: The proper criterion of the effectiveness of teacher education is child gain in the classroom. Intermediate criteria are necessary but the biases introduced by the intermediate criteria should be studied and corrected when child gain measures become available.

RD 00 74
03.03

Authors: Peck, Robert F.
Menaker, Shirley L.

Title: MEASUREMENT OF CHANGE IN ELEMENTARY TEACHER TRAINEES DURING A TWO-YEAR TRAINING PERIOD

Date: 1967

Publication: American Psychologist, 22, p. 592

Abstract: Three tests of personality and attitude were given to 79 female elementary school teachers (College of Education, The University of Texas at Austin) at the beginning and end of a two-year training period to determine if changes could be demonstrated over time on any of 49 variables measured. The variables were from the Bown Self-Report Inventory (SRI, nine scores), the Peck-Veldman One-Word Sentence Completion Test (OWSC, 25 scores) and the Directed Imagination Test (DI, 15 scores), the latter being a test in which the subjects made up four stories dealing with teaching.

Significant changes over time ($p < .05$) were seen in ten variables and strong tendencies toward change ($p > .05 < .10$) were observed in six more variables. Changes were mainly in areas of self-description dealing with ability and competence; and in expressed attitudes toward others. Later testing (senior year) indicated an increase in self-expressed ability to deal with pupils, an increase in self-expressed ability to withstand stress, increased self-description of persistence, less concern expressed about the problem of failure and an increased feeling of independence and self-reliance. This increased feeling of independence was complemented by the expression of a more negative attitude toward father and mother in later testing. All the preceding variables were measured by the OWSC. A freer expression of less positive attitudes to people was also seen on the SRI, where later testing showed more negative self-reported attitudes toward others, authority figures and parents.

On the DI, later testing demonstrated a decrease in the amount of crisis in stories of teaching -- the teacher-protagonists evidenced less anxiety about unpreparedness. In addition, there was an increase in the amount of empathy expressed by the teachers toward the children in the stories.

In general, the mean performance of the elementary teacher trainees at the end of their training program (in contrast to their mean performance at the beginning of their training) was similar to the mean performance of a group of in-service teachers ($N = 24$) on whom equivalent test data were available.

Results should be of interest to educational personnel in general.

RD 00 75
03.03

Authors: Peck, Robert F.
Menaker, Shirley L.
Veldman, Donald J.

Title: AUTOMATED PERSONALITY ASSESSMENT WITH SENTENCE COMPLETION DATA

Date: 1966

Publication: American Psychologist, 21, p. 678

Abstract: This is a report on the results of a study designed to develop techniques for programming a computer to perform rudimentary personality assessment from projective material. A new instrument was developed for the study -- the Peck-Veldman One-Word Sentence Completion Test (OWSC) -- consisting of 90 stems, with instructions to respond to each stem (incomplete sentence) with no more than one word.

OWSC responses of 1000 female sophomore subjects were punched on tab cards and transferred to magnetic tape. Compiling programs were written to produce a series of listings, one for each of the 90 stems, of all different responses and their frequencies, ordered by frequence of occurrence with the sample. The resulting response banks were used to compile a "dictionary" for the computer to use in scoring new OWSC protocols from similar subjects on a series of psychological variables. Twenty-five psychological variables were selected for rating from the OWSC data.

A dictionary was compiled for each variable. Responses to each stem were examined and any responses clearly related to a variable were marked for use. Weights were assigned to responses on a scale of zero (negative) to 16 (positive), with eight reserved for responses considered neutral. Each protocol was read into the computer and each protocol response was compared against all dictionary entries for the corresponding stem. The subject's score for the construct was modified by the associated weight for his response. To evaluate the efficiency of the computer scoring program, two clinically trained raters independently rated the OWSC protocols of a group of 79 females elementary education students on the same 25 psychological variables, using 7-point scales.

Intercorrelations for two trained raters across the 25 scales averaged .66, and ranged from .38 to .95, all correlations thus significant at the .005 level or beyond for the sample size. The scores obtained by computer scoring were then correlated with scores from each rater, and with the concensus (average) of the two raters. In general, the computer agreed favorably with the raters: correlations between machine scores and concensus ratings averaged .66 across the 25 constructs and ranged from .45 to .94. Results should be of interest to psychological, educational and counseling personnel.

Authors: Peck, Robert F.
Richek, H.G.

Title: TEACHER EDUCATION FOR MENTAL HEALTH: A REVIEW OF RECENT STUDIES

Date: 1967

Publication: 1967 Yearbook of the Association for Student Teaching
pp. 217-325

Abstract: An ideal pattern for research on the effects of teacher education on the mental health of students would include identification and measurement of the following:

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2. The particular interactions among teachers and children which directly influence specified aspects of the children's mental health.
3. Specific attitudes and actions of the teacher which bear on mental health.
4. The characteristics of the teacher education program designed to influence specified characteristics and behaviors of teachers in training.
5. The actions and attitudes of particular teacher educators.

Such research has yet to be attempted anywhere in its complete form. The sheer magnitude of such a project has been prohibitive. Federal support has recently enabled some institutions to approach this ideal. Only four -- Bank Street College, San Francisco State College, The University of Texas and the University of Wisconsin -- have used research designs which approach the ideal, and a comprehensive design has yet to appear at any one place.

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RD 00 77
04.01

Authors: Rowland, Thomas
McGuire, Carson

Title: THE DEVELOPMENT OF INTELLIGENT BEHAVIOR III: COMPETENCE AND EFFECTANCE MOTIVATION: ROBERT W. WHITE

Date: July, 1968

Publication: Psychology in the Schools

Abstract: Professor White shaped his notions of human motivation in studying the persons he depicts in his book, Lives in Progress (1952, 1966). He came to the conclusion that human behavior is energized and directed by something more than tension reduction (Freud) and behavioristic drive theory (Hull). He postulated that effectance motivation became differentiated through learning experiences and began to be linked with achievement, mastery, constructive behavior and a sense of competence. White's ideas are examined in relation to those of Pavlov and Berlyne and illustrated in two brief case studies.

RD 00 62

04.01

Authors: McGuire, Carson
Rowland, Thomas

Title: THE DEVELOPMENT OF INTELLIGENT BEHAVIOR II. CURIOSITY IN THE EDUCATIONAL ENCOUNTER: A REPRESENTATION OF DANIEL E. BERLYNE

Date: April, 1968

Publication: Psychology in the Schools

ERIC No.: ED 013 987

Abstract: This paper presents a summary of Berlyne's thought about curiosity and cognitive conflict as motivational factors in knowledge-seeking behavior. The summary is based upon four of Berlyne's works that were selected as "core" to the development of his thought. This paper concentrates upon bringing out the significant differences of the selected works. The authors discuss Berlyne's classification of motivational factors, types of motivation of exploratory behavior, the determinants of exploratory behavior, the roles of selected factors (arousal, conceptual conflict, equilibrium, and information theory variables) as determinants of human perceptual curiosity, and epistemic (learning) behavior. The authors conclude that a knowledge of the effective use of curiosity in educational process is necessary for understanding intellectual processes and that the work of Berlyne is an important resource for those who wish to understand the use of curiosity in education.

Status: Availability from R&D is limited; may be ordered from ERIC Reproduction Service (hardcopy $0.85)

RD 00 63

04.01

Authors: McGuire, Carson
Simpson, Bert L.

Title: ASSESSMENT OF THE EDUCATIONAL ENCOUNTER: AN APPROACH TO PREPARING TEACHERS IN EARLY CHILDHOOD EDUCATION

Date: June, 1967

Publication: R&D Center mimeograph of the interim report of the AEE Project

Abstract: The AEE Project has been undertaken to determine the possibility of using ETS materials developed in "The New York City Project" as (1) instruments to assess the intellectual functioning of pupils entering schools, and (2) models of materials to be used in teaching "learning sets" together with concepts and skills necessary if Piaget's ideas and the work of Gagne (1962, 1965) are to be exploited in the preparation of teachers. This preliminary inquiry in a school with approximately equal numbers of Anglo, Latin and Negro American children has yielded a number of insights into the ways teachers as well as children of both sexes from different family backgrounds respond. Further inquiry is warranted to determine the cost/benefits outcomes of such a program. (14 references)

Status: Availability limited; reproduction service charge ($1.05)

RD 00 64
03.03

Author: Menaker, Shirley L.

Title: MANUAL FOR SCORING 18 SCALES FROM THE THEMATIC APPERCEPTION TEST

Date: 1966

Publication: R&D Center mimeograph

Abstract: A manual was developed for TAT data in order to quantify this narrative material so that one subject could meaningfully be compared with another. TAT data had traditionally been collected from teacher candidates in the College of Education at The University of Texas, to be used qualitatively by counselors in assessing the personality variables of the subjects involved. A method for quantifying the data would enable this "projective" material to be scored and used predictively with subjects engaged in research programs within the College.

A group of clinically trained raters examined the protocols of 174 elementary and secondary education majors. Protocols were five-minute, timed stories told to eight standard TAT cards administered by slide projector in a group session.

Each rater prepared a list of content areas he or she found present in the stories, which might be subject to rating. Raters then met to compare and combine areas which could best be seen as opposite poles of a single continuum. Eighteen areas of content were set up to be rated, each area rated on a seven-point scale. Paragraphs describe the dimensions of each content area; short, descriptive statements were included illustrating each of the seven scale points for each scale; and, for certain scales, example stories were included for each scale point.

Tests were run on the reliability of rating following the instructions in the manual. For a sample of 95 protocols from elementary education majors (eight stories on each protocol), inter-rater reliability ranged from .33 to .97, with an average of .56 across the 18 scales. For actual ratings, pooled ratings from two raters were used, and the reliability of these pooled ratings ranged from .50 to .98, with an average of .71. The manual should be of interest to psychological, educational and counseling personnel engaged in projective testing.

RD 00 65

03.03

Authors: Menaker, Shirley L.
Veldman, Donald J.
Peck, Robert F.

Title: PREDICTION OF MENTAL HEALTH THROUGH COMPUTER SCORING OF A SENTENCE COMPLETION TEST

Date: 1966

Publication: American Psychologist, 21, p. 634

Abstract: An investigation was undertaken to determine how successfully an overall adjustment rating made by trained clinical raters could be predicted by means of a computer program for scoring adjustment which used only the data from a one-word-sentence-completion instrument. Subjects for the study were 69 female college seniors at The University of Texas. The adjustment ratings on these subjects made by the clinical raters were based on an extensive assessment battery, which included the sentence completion instrument. Computer scoring of "adjustment" from the sentence completion instrument alone entailed the compilation of a mental health dictionary to be used by the computer. This dictionary was compiled from a sentence completion data bank of a large independent sample.

Adjustment scores obtained from the computer scoring of the sentence completion test correlated .55 with the clinically rated adjustment score. Upon investigation, it was found that clinically rated adjustment correlated highly with grade point average, while the computer-obtained score did not. The computer rating is based on weights assigned to individual words in the stem bank on the basis of their apparent relationship to deviant attitudes. The clinical adjustment rating, on the other hand, is based on the psychological opinions of human raters rating a much larger battery of projective data, who are correctly influenced by features such as grammar, spelling, word usage, organization, coherence, etc., when making their ratings of adjustment. The latter ratings are thus influenced more by general "ability" factors than are the machine ratings. It was apparent that an increase in predictive efficiency would result from a combination of the two variables: computer-scored adjustment and grade point average. The resulting multiple correlation with clinically rated adjustment was .73, which after shrinkage remained .725, a correlation coefficient approximating that which might be expected between skilled raters on a variable such as mental health.

The results suggest an inexpensive means of identifying well-adjusted and poorly adjusted people in the college population with considerable accuracy. This might prove useful in large-scale selection of college subjects for a research design in which it is advisable to control for mental health. Results should be of interest to psychological, counseling and educational personnel.

RD 00 66

03.03

Authors: Parker, G.V.C.
Veldman, Donald J.

Title: ITEM FACTOR STRUCTURE OF THE ADJECTIVE CHECK LIST

Date: October, 1968

Publication: Educational and Psychological Measurement (in press)

Abstract: An empirical study of the factor structure of the 300 Adjective Check List (ACL) items is described. Based on the data from 5,017 university undergraduates, three factor analyses were performed using (a) 2,805 males, (b) 2,212 females, and (c) total group. Factor extraction by the principal components method was followed by normalized varimax rotation, leading to the identification of seven factors, labelled: Social Desirability, Interpersonal Abrasiveness, Ego Organization, Introversion-Extroversion, Internal Discomfort, Intraception, and Social Attractiveness. Although the separate-sex varimax structures differed somewhat, re-rotation toward the total-group structure aligned the item vectors with very few exceptions. The relationships of the factors to standard ACL scales and their factors, were examined. The findings may be useful in further research concerning self-description and the organization of self-concept.

RD 00 67
01.00

Author: Peck, Robert F.

Title: CONTRIBUTIONS OF PSYCHOLOGY TO THE EDUCATION OF VOCATIONAL TEACHERS

Date: September, 1967

Publication: R&D Center mimeograph of paper presented at National Vocation-Technical Teacher Education Seminar

Abstract: Like most other sciences, psychology offers facts about the behavior of human beings, organizing concepts which help to explain behavior, and action systems which are designed to influence behavior in desirable ways. Concerning vocational education, three kinds of contributions from psychology are worth considering: (1) knowledge about the development of vocational behavior which may be useful to teachers of vocational education, (2) knowledge about prospective teachers which may be useful to teacher educators, and (3) new educational procedures which are proving effective in the training of teachers. Examples are cited from studies of teacher characteristics and experiments in personalizing teacher education conducted at the Texas R&D Center for Teacher Education. Evidence on career aspirations and values is also drawn from the Cross-National Study of Coping Styles and Achievement.

RD 00 68
01.00

Author: Peck, Robert F.

Title: HOW STUDENTS COPE WITH WORK PROBLEMS IN THE U.S. AND ABROAD

Date: December, 1967

Publication: R&D Center mimeograph of paper presented at the American Vocational Association Annual Meeting

Abstract: What styles of action do boys learn to use in tackling work problems? How are these different from what girls do? What particular coping styles are preferred in different cultures? What differences are there between working class and upper-middle class in their dominant coping styles? Such choices of strategies in dealing with tasks are related to school achievement, vocational aspirations, and to kinds of satisfactions young people seek in their work. By combining such measures of motivation and behavior style with measures of aptitude, better understanding and better prediction of individual achievement is sought. The study also seeks information about how children are influenced by family experiences in the development of their coping styles. This paper offers preliminary findings from a cross-national study of school children from eight countries. This work is the basis for an experiment now under way in the R&D Center for Teacher Education to test ways of training teachers to improve the coping effectiveness of their pupils.

RD 00 69

01.

Author: Peck, Robert F.

Title: THE RESEARCH AND DEVELOPMENT CENTER IN TEACHER EDUCATION -- A PARTNERSHIP OF SCHOOL SYSTEMS, STATE EDUCATION AGENCIES AND COLLEGES

Date: 1967

Publication: R&D Center mimeograph

ERIC No.: ED 011 598

Abstract: The work of the Teacher Education Research and Development Center, a long-term program of research, demonstration, and dissemination, was described. The administrative organization was also discussed along with the sets of factors in teaching behavior and child learning which the Center is undertaking to study. The Center is also conducting studies dealing with the two educational strategies of the self-contained classroom and the team-teaching format. Educational programs for the improvement of Spanish-speaking children, research on student teacher teaching techniques, administrative philosophy and practices, and cultural patterns are only a portion of the operations being conducted by the subdivisions of the Center.

Status: Out of print and unavailable. A later paper, Peck and Bown, "The Research and Development Center for Teacher Education," published as R&D Report Series No. 1, December, 1968, replaces this document.

RD 00 70

01.

Author: Peck, Robert F.

Title: WHY SHOULD WE TEACH ELEMENTARY SCHOOL CHILDREN ABOUT THE PRINCIPLES OF HUMAN BEHAVIOR?

Date: Spring, 1967

Publication: Journal of School Psychology

Abstract: Traditionally, children in the schools were taught to behave through authoritative control and moral exhortation. Because these methods were not efficient or completely effective, we have begun to examine the possibility of inducing habits of conduct by teaching children to understand why people act as they do. There are at least three lines of reasoning as to why this process should be started in the elementary schools.

I. (a) Childrens' attitudes and motivations are vital to their successful completion of school. (b) The single, most important influence on school retention is the degree to which the child feels accepted by his classmates. (c) Teaching children to understand the causes of behavior improves such agemate relations.

II. (a) The most frequent cause for discharge or demotion of adult workers is inability to work with other people. (b) Attitudes and habits of interpersonal relations are easiest to modify during early and middle childhood.

III. (a) Crime, divorce and mental illness spring from hostile alienation from people or from anxiety about their intentions. (b) Correction is easiest in childhood. (c) While instruction alone cannot cure these ills, it can help.

Lessons on behavior could be incorporated into existing subjects, such as social studies. Lengthy, special training will not be necessary. With appropriate curriculum materials, many naturally equipped teachers could introduce principles of human behavior into the elementary classroom.

RD 00 71

01.00

Authors: Peck, Robert F.
Bown, Oliver H.

Title: THE RESEARCH AND DEVELOPMENT CENTER FOR TEACHER EDUCATION

Date: December, 1968

Publication: R&D Report Series No. 1

Abstract: This is an overview of the history, the objectives and the program of the R&D Center for Teacher Education. Prior research and experimental education programs dating from 1958 are described; the Center's evolution during its first three years is briefly sketched. The integrated plan of operation which emerged during 1968 is outlined in detail. The program has two major aims: (1) Basic research on the effects of varied kinds of teacher education on actual teaching behavior and the effect of teaching behavior on child learning. (2) The development of a teacher education system composed of a diversified array of many relatively small instructional modules which would ultimately permit flexible, individualized teacher development. Conceptual guidelines and the structure of modules are described, as are the anticipated products of the program.

Status: This report is available in some quantities; orders for up to 10 copies free of charge are welcome.

Authors: Peck, Robert F.
Bown, Oliver H.
Fuller, Frances F.
Menaker, Shirley L.

Title: A STUDY OF ELEMENTARY TEACHER TRAINING: EXPERIMENTAL-CONTROL GROUP COMPARISONS AND CHANGES OVER A TWO-YEAR TRAINING PERIOD

Date: 1967

Publication: R&D Center mimeograph

Abstract: This is an early report of the Personality, Teacher Education and Behavior Project. In September, 1962, investigators at The University of Texas initiated a five-year study on the effects of differing experimental treatments on the teacher trainees in the elementary school pre-service teacher training program. This program is begun in the junior year of college. Each subject was tested with a battery of projective tests at the beginning of the junior year and again, approximately 18 months later, after student teaching in the senior year. The tests administered were the Bown Self-Report Inventory (SRI), the Peck-Veldman One-Word Sentence Completion Test (OWSC), and the Directed Imagination Test (DI). In addition, each subject was filmed at the beginning of his junior year (practice teaching in an elementary school classroom) and again while teaching in his senior year during the student teaching semester.

The subjects were 79 elementary school teacher trainees. For major analyses, a control group of 20 subjects who had received all pre-post testing and filming but had received no additional treatment was compared with an experimental group of 59 subjects who had received varying and differential amounts of feedback. In general, the differences found between the filmed behavior of elementary teacher trainees before and after teacher training parallel the differences which other investigators have found between "average" and "superior" in-service teachers (pre-training similar to average, post-training similar to superior). The investigators had the opportunity to collect equivalent personality data from a small sample (N = 24) of in-service cooperating teachers at a local elementary school. In general, the mean performance of the elementary teacher trainees at the end of their training program, in contrast to their mean performance at the beginning of their training, was similar to the mean performance of this group of in-service teachers. Among the personality tests, the DI proved most sensitive to differential changes over time between Experimental and Control subjects. In contrast to the Controls, Experimentals became (on the DI) more organized, imaginative, optimistic, focused on the individual pupil and more sure of their coping ability.

Status: Out of print; see Fuller, et al, Effects of Personalized Feedback During Teacher Preparation on Teacher Personality and Teaching Behavior.

RD 00 73
01.00

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Dingman, Harvey F.

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RD 00 77

04.01

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RD 00 78

03.03

Author: Veldman, Donald J.

Title: COMPUTER-BASED SENTENCE COMPLETION INTERVIEWS

Date: 1967

Publication: Journal of Counseling Psychology, 14 (2), pp. 153-157

Abstract: A 36-item sentence-completion form requiring single-word responses was administered to 2,321 college freshmen to obtain normative data. Six hundred sixteen different response words, which were used by more than one per cent of the sample, were incorporated into a computer program written for a modified IBM 1401 computer with typewriter terminals designed for computer-assisted instruction. A sample of 12 student volunteers filled out the sentence-completion form and then were "interviewed" by the computer program. Results confirm the feasibility of the technique and vividly illustrate the value of a tailored inquiry, even when it is conducted by a computer.

This pilot study was a by-product of the Computer Analysis of Personality Project at The University of Texas. The results will be of particular interest to psychologists seeking to extend assessment methodology by integrating unique human and machine capabilities.

RD 00 79
03.03

Author: Veldman, Donald J.

Title: EDSTAT-V: BASIC STATISTICAL PROGRAMS AND
SUBROUTINES FOR THE CDC 6600 COMPUTER

Date: October, 1968 (second revision)

Publication: mimeograph, 26 pp.

Abstract: This manual outlines procedures for using a system of 21 computer programs which are stored on-line to the CDC 6600 computer at The University of Texas at Austin. Control card requirements and options are described, as well as general information about data-card arrangements and system characteristics.

The core of this system of programs is a series of basic routines described in *Fortran Programming for the Behavioral Sciences*, by this author, published by Holt, Rinehart and Winston in 1967. The CDC 6600 versions of the basic programs have been extended to make use of the very large memory and speed of this particular computer. A number of routines are also included that did not appear in the original book system.

This system of statistical programs was written with the student and the infrequent user in mind, using standard control card arrangements and straight-forward output labeling as much as possible. Each program is entirely independent of others in the system; no provisions are included for chaining of procedures. On the other hand, the programs include, in many cases, a more complete series of options than do other similar programs. For instance, the factor analytic routine includes an option for image analysis and will take the user from raw data through rotated factor scores in one pass, with a full choice of intermediate output.

RD 00 80

03.03

Author: Veldman, Donald J.

Title: EFFECTS OF SEX, APTITUDES, AND ATTITUDES ON THE ACADEMIC ACHIEVEMENT OF COLLEGE FRESHMEN

Date: October, 1968

Publication: Journal of Educational Measurement (in press), also R&D Center mimeograph

Abstract: This study is based on data from the files of a project called *A Study of Freshmen,* supported by the Excellence Fund at The University of Texas. It represents an attempt to obtain more definitive evidence regarding the determinants of sex differences in college grades, which have in the past been attributed to instructor biases favoring females.

Freshman CPA, verbal and quantitative SAT scores and eight scales of the Bown *Self-Report Inventory* were intercorrelated, and a series of regression analyses was used to test specific hypotheses. The sample consisted of 1358 males and 957 females.

The results clearly indicated that (1) females' grades were no higher than those of males on the average; (2) females a achieved significantly higher grades relative to their aptitude test performances than did males; (3) self-reported attitudes toward work made a substantial contribution to the prediction of grades, even when aptitudes were held constant, and (4) a substantial proportion of the sex differences in relative achievement could be shown to overlap with attitudes toward work.

The findings provide further support for the validity of the *Self-Report Inventory* as a measure of attitudes bearing upon the achievement potential of college students. They also refine considerably the commonly accepted notion that females "do better" in college than do males.

RD 00 81

03.03

Author: Veldman, Donald J.

Title: FORTRAN PROGRAMMING FOR THE BEHAVIORAL SCIENCES

Date: 1967

Publisher: Holt, Rinehart and Winston, New York, 406 pp.

Abstract: This textbook is intended to prepare research workers to write their own special-purpose computer programs and to acquaint them with a variety of programmed procedures for multivariate analysis of behavioral science data. The first two chapters survey the history and variety of hardware (machines) and software (programming languages) in current use. The third chapter outlines essential aspects of punch-card processing, and the fourth and fifth chapters introduce the reader to the rules and regularity of the Fortran programming language, with a series of examples of gradually increasing complexity. The sixth chapter concerns subroutine construction and includes a variety of general purpose input/output subroutines and basic arithmetic functions. The seventh chapter considers the topic of matrix algebra from the viewpoint of computer programming.

Chapters 8 - 12 concern major types of statistical procedures, such as intercorrelation and factor analysis, analysis of variance, and multiple regression. Operative programs are included with examples of their input and output. Chapter 13 concerns the essentials of verbal data processing using the vehicle of the Fortran language. This latter chapter is particularly relevant to current efforts by the R&D Center for Teacher Education to develop computer-based systems for scoring sentence completion data.

Status: This entry is a book and is not available from the R&D Center, but may be ordered from Holt, Rinehart and Winston.

RD 00 82

03.03

Author: Veldman, Donald J.

Title: INFLUENCES OF SEX, VERBAL ABILITY AND QUANTITATIVE ABILITY IN ONE-WORD SENTENCE COMPLETION VARIABLES

Date: February, 1968

Publication: R&D Center mimeograph, 13 pp.

Abstract: This report concerns analyses of data collected by a project called *A Study of Freshmen*, supported by the Excellence Fund of The University of Texas. It concerns a series of exploratory validity studies of an experimental computer-based scoring system for *One-Word Sentence Completion* data developed by the author for the R&D Center for Teacher Education.

The experimental OWSC scoring system yields scores on 40 variables from each 36-stem protocol submitted to it. These 40 scores were used as the dependent variables in a series of regression analyses of covariance to explore their relationships to quantitative and verbal aptitudes, as measured by the SAT entrance tests at the University. Samples of 1358 males and 957 female freshmen were separately analyzed.

Females appeared to be more verbally fluent on the OWSC, even when verbal aptitude was held constant. They also described themselves more positively with regard to the social virtues. The males responded to the OWSC with more restriction and deliberate evasiveness. They indicated more materialistic interests and more acceptance of stress. High quantitative subjects of both sexes showed a consistent tendency toward greater mental health -- optimism, confidence, ambition -- although they were somewhat inarticulate. The high verbal subjects, in sharp contrast, appeared somewhat cynical and misanthropic, with indications of impulsivity and stimulus hunger.

Although the trends noted in these large samples account for very minor proportions of the variance obtained, they are highly reliable and deserve further study with more refined measures of the personality constructs.

RD 00 83

03.03

Author: Veldman, Donald J.

Title: PUPIL EVALUATION OF STUDENT TEACHERS AND THEIR SUPERVISORS

Date: 1969

Publication: Journal of Teacher Education (in press); preprinted as R&D Report Series No. 17

Abstract: This report is the first completed study from a larger project called Teacher Aides in a Secondary School, supported by the R&D Center for Teacher Education at The University of Texas. Pupils in 55 seventh-grade school classes completed the Pupil Observation Survey Report (POSR) twice -- once to describe their student teacher and once to describe the regular (cooperating-supervising) teacher. All teachers involved were female.

Analyses of variance of the six factor dimensions of the POSR indicated that the student teachers were seen as more friendly, cheerful, lively, interesting and directive, but as less poised, knowledgeable and firmly controlling than their supervisors. The difference in general evaluation of the two groups was not significant.

Correlations between the POSR scores of the student teachers and their supervisors were significant only for the factors called Non-Directive ($r = .57$) and Firm Control ($r = .29$). These results are consistent with the hypothesis that the regular teachers "set" the classroom atmosphere and activity structure before the student teacher arrives on the scene to handle the class by herself.

The findings are relevant to any research employing pupil evaluations of teacher behavior, and support the validity of the POSR as a specific tool for such measurement.

RD 00 84

03.03

Author: Veldman, Donald J.

Title: RESPONSE REDUCTION TO WORD ROOTS

Date: October, 1965

Publication: R&D Center mimeograph, 21 pp.

Abstract: This report originated from the Computer Analysis of Personality project (NIMH 06832, 1962-1967) at The University of Texas. It is an essential part of the current R&D Center work on computer-based scoring of sentence-completion data.

A major problem in dealing with response words generated by the One-Word Sentence Completion technique is the variety of variant suffixes and prefixes which carry no significant semantic implications for scoring of the data. Reducing the responses by eliminating these minor variations shortens all other processes involved in handling such data.

The General Inquirer system of searching for specific suffixes to be chopped is described, and then a superior root-searching algorithm is developed and flow-charted with examples. Prefix-recognition techniques are also outlines. Finally, a completely processed example of the use of the routine is presented.

Although variations of the extent of suffix reduction may be used in particular applications, and the efficiency of prefix reduction is debatable, the root-search procedure may be considered a superior general algorithm for achieving data reduction of this type.

RD 00 85

03.03

Author: Veldman, Donald J.

Title: RMM-8: ROTATION OF EMPIRICAL FACTORS TOWARD A THEORETICAL STRUCTURE

Date: Spring, 1969

Publication: Research Methodology Monograph No. 8

Abstract: A statistical procedure developed by Kaiser and programmed by the author for dealing with the "orthogonal Procrustes" problem in the field of factor analysis is described. Five examples are provided to illustrate applications of the method to educational/psychological data. Comparisons of two empirical structures are exemplified, as well as the reorientation of an empirical structure toward an artificial structure representing a particular hypothesis. The purpose of the paper is tutorial, but the substantive results of the examples may also be of interest to behavioral scientists.

RD 00 86
03.03

Author: Veldman, Donald J.

Title: SCORING STRUCTURE AND REPORT GENERATOR
FOR THE 36-ITEM OWSC FORM

Date: January, 1967

Publication: R&D Center mimeograph, 24 pp.

Abstract: This report originated from a project supported by the Excellence Fund of The University of Texas and from the activities of the Computer Analysis of Personality project. It forms the background for some of the current efforts to develop computer-based scoring systems for One-Word Sentence Completion (OWSC) data by the staff of the R&D Center for Teacher Education.

The report begins with a general discussion of the problem of response grouping, using a sample of the 2321 freshmen to exemplify the processes of data reduction. The final result of the procedures was a system of reducing OWSC data to a three-way frequency table: four groups of stems, six response themes, and three levels of affect/evaluation. In addition, six "structural" response variables are defined.

A report generator program is described which automatically yields to a two-page summary description of any OWSC protocol input to it. An example of the output of this routine is included. The report concludes with an exploratory analysis of sex differences on the 26 variables scored by the report generator, and a series of intercorrelation analyses of the internal relationships among various parts of the system.

Although never utilized in practical screening or counseling programs, the system serves as an experimental model of many of the processes to be implemented by later development projects now under way.

RD 00 87
03.03

Author: Veldman, Donald J.

Title: STUDENT EVALUATION OF COLLEGE OF EDUCATION COURSES

Date: July, 1968

Publication: R&D Center mimeograph, 20 pp.

Abstract: This report concerns the results of a study of student evaluations of junior and senior-year courses and instructors in the College of Education at The University of Texas at Austin during the Fall, 1967, semester. The study was initiated by the Committee on Excellence in Teaching, in cooperation with the Student-Faculty Council. Data reduction and analyses were carried out by the staff of the R&D Center for Teacher Education.

Two questionnaires were used. A 35-item form was completed by students in 81 sections of undergraduate education courses, and a 22-item form was given to members of 32 senior student-teaching seminars. The former questionnaire concerned only the particular courses and instructors of the sections, while the latter form included questions concerning retrospective evaluations of various aspects of the entire College of Education program.

Of particular interest to researchers considering implementation of an evaluation program of this type are the methodological aspects of this study, which employed factor analysis as the primary method of data reductions. Also of interest are some of the findings regarding the difficulties of interpretation engendered by particular types of items. The general findings will probably be of minor interest to readers outside of the University, since the report was intended primarily to provide normative information to individual faculty members who received feedback on the results from their own classes.

RD 00 88
03.03

Author: Veldman, Donald J.

Title: A STUDY OF FRESHMEN: INTRODUCTION

Date: August, 1965

Publication: R&D Center mimeograph, 20 pp.

Abstract: This report originated from a project supported by the Excellence Fund of The University of Texas. The data has served a variety of purposes, including the development of scoring systems for the One-Word Sentence Completion technique, which is one of the current focii of the Assessment Division of the R&D Center for Teacher Education.

A sample of 2321 freshmen (1362 males and 959 females) was given the following test battery in their freshman English courses: (1) the OWSC (36-item) form, (2) a special biographical information form, and (3) the Bown Self-Report Inventory. In addition, data were obtained from the Registrar's Office and the Testing and Counseling Center on their entrance examination performances, high school grades, and first year University grade averages.

This report describes the testing procedures and includes copies of the various instruments used. In addition, preliminary data-reduction analyses of the OWSC data are described, and results of some early correlational analyses of response characteristics are reported. Sex differences in response characteristics are also described. The females tended to be less "defensive" in responding to the OWSC instrument, and showed some indications of greater verbal fluency. The females were more prone to the use of negative evaluative/affective responses, while the males gave more neutral responses. No differences were noted in the use of positively loaded words.

RD 00 89

03.03

Author: Veldman, Donald J.

Title: A STUDY OF FRESHMEN: VQ ANALYSES

Date: November, 1966

Publication: R&D Center mimeograph, 18 pp.

Abstract: This report originated from a project supported by the Excellence Fund of The University of Texas. The data have served as the vehicle for development and initial validation of computer-based scoring systems for the One-Word Sentence Completion (OWSC) technique, currently being implemented by the R&D Center for Teacher Education.

In this study a sample of 2321 freshmen (1362 males and 959 females) were divided equally into high, medium, and low subgroups on their SAT verbal (V) and quantitative (Q) entrance scores, and the resulting nine groups were used to define a series of two-factor analyses of variance, using a series of 63 other measures as dependent variables. Because the females scored much lower on the Q variable, the sex samples were separately divided into thirds, and separate analyses were performed of the dependent measures.

Most of the findings from this initial exploratory study were expected because of the known relation between the ability measures and the various performance variables. A few findings were rather surprising -- such as the significantly lower Q scores of freshmen who smoke -- and have been the subject of more intensive follow-up studies.

Of the 63 dependent variables, eight were obtained from the OWSC data, and provided some very interesting evidence regarding the deviant personality/performance characteristics of the high-verbal/low-quantitative male subjects, who seemed to be much more superficial in their verbal behavior than the high-V/high-Q males.

RD 00 90
03.03

Author: Veldman, Donald J.

Title. TWO LIST-COMPILING PROCEDURES

Date: July, 1965

Publication: R&D Center mimeograph, 12 pp.

Abstract: This report originated from the Computer Analysis of Personality project at The University of Texas. It is an essential part of the current R&D Center for Teacher Education work on computer-based scoring of sentence-completion data.

A major initial data-processing procedure in any study dealing with verbal data is the reduction of the myriad single response words to lists of the different words, with their frequencies of occurrence in the sample. Two basically different methods of accomplishing this data are then provided to evidence the superior speed of the less obvious algorithm, which makes use of link-sequenced sublists keyed on the initial response characters.

Because the faster procedure is so by a factor of at least five in handling the common large-scale data sets involved in sentence-completion dictionary development, significant savings in computer time result from implementation of this procedure.

RD 00 91

03.03

Authors: Veldman, Donald J.
Bown, Oliver H.

Title: PERSONALITY AND PERFORMANCE CHARACTERISTICS ASSOCIATED WITH CIGARETTE SMOKING AMONG COLLEGE FRESHMEN

Date: January, 1969

Publication: Journal of Consulting and Clinical Psychology, Vol. 33, No. 1, pp. 109-119

Abstract: Habitual cigarette smokers were located in a group of 2321 university freshmen. Smoking was related to both sex and social class. Matched samples of 401 smokers and non smokers were compared on a series of 70 dependent variables. Smokers were significantly lower in cognitive ability, high school and college grades, two self-report health indices, self-esteem, work-motivation, and attitudes toward men. The smokers scored higher on semiprojective measures of orality, social confidence, and acceptance of ambiguity. The data were most consistent with the stimulus hunger theory of smoking motivation.

RD 00 92

03.03

Authors: Veldman, Donald J.
Bown, Oliver H.

Title: RELATIONSHIPS OF CIGARETTE SMOKING TO ACADEMIC ACHIEVEMENT, COGNITIVE ABILITIES, AND ATTITUDES TOWARD AUTHORITY

Date: October, 1968

Publication: Multivariate Behavioral Research, Vol. 3, pp. 513-516

Abstract: Published research has linked cigarette smoking with (1) inferior academic performance, (2) lower quantitative scholastic aptitude, and (3) negative attitude toward authority figures. Using data from 2315 freshmen (1358 males and 957 females), these three relationships were confirmed. Furthermore, analyses of covariance clearly demonstrated that neither scholastic aptitude nor attitudes toward authority -- although themselves related to academic performance -- could account for the relationship between cigarette smoking and grade-point average.

RD 00 93

03.03

Authors: Veldman, Donald J.
Kelly, F.J.

Title: PERSONALITY CORRELATES OF A COMPOSITE CRITERION OF TEACHING EFFECTIVENESS

Date: 1965

Publication: The Alberta Journal of Educational Research, 1965, *11*, pp. 102-107

Abstract: This study was carried out with data from the Mental Health in Teacher Education project at The University of Texas. Ratings of teaching potential based on sentence-completion data were completed blind with 31 students rated highly effective by their supervising professors and 31 rated low in effectiveness. Only 34 of the 62 cases were rated similarly by both supervisors and the clinical judges. The 17 high and 17 low-rated cases were then compared on five factors of the *Pupil Observation Survey Report*, ten scores from the *Self-Report Inventory*, and the 18 scales of the *California Psychological Inventory* (CPI). Twenty of these variables significantly differentiated the two groups.

Effective student teachers were considered to be more friendly, but in more firm control of their classes than were ineffective teachers. Effective teachers indicated greater self-acceptance, social dominance and acceptance of traditional authority relationships. The effective teachers were seen as able to work for improvements from *within* established institutional patterns without engendering the hostility and resistance often aroused by those who seek changes in public school programs.

The results of these analyses will be of particular interest to teacher educators, researchers in the field of teaching behavior, school administrators, and various critics of the educational scene. H.G. Gough (*Journal of Educational Psychology*, 1968, *59* (2), 119-127) used the data of the present study to successfully validate a CPI regression equation he developed to predict potential student-teaching performance.

RD 00 94

03.03

Authors: Veldman, Donald J.
Menaker, Shirley L.

Title: COMPUTER APPLICATIONS IN ASSESSMENT AND COUNSELING

Date: 1968

Publication: Journal of School Psychology, 1968, 6 (3), pp. 167-176

Abstract: Public school counselors and psychologists can expect valuable assistance from computer-based assessment and counseling techniques within a few years, as programs now under development become generally available for the typical computers now used by schools for grade reporting and class scheduling. Although routine information-giving and gathering interviews can be computerized with relative efficiency, the future of computer-based therapeutic counseling appears gloomy. A variety of current research efforts are reviewed.

The article will be of special interest to school psychologists, teacher educators and administrators who must anticipate the needs of the schools in the next decade.

RD 00 95
03.03

Authors: Veldman, Donald J.
Menaker, Shirley L.

Title: THE DIRECTED IMAGINATION METHOD FOR PROJECTIVE ASSESSMENT OF TEACHER CANDIDATES

Date: 1969

Publication: Journal of Educational Psychology, 60 (3), 178-187

Abstract: This paper summarizes the development of a scoring system for this projective personality assessment technique. Validity evidence was obtained from data provided through the Personality and Teaching Behavior project at The University of Texas. This technique has particular value for personalization of teacher education programs.

The Directed Imagination technique consists of a single sentence of instruction: "Tell four fictional stories about teachers and their experiences." Subjects are provided with four blank sheets of paper, and are allowed four minutes to write each story. Based on a sample of 250 protocols provided by 125 female students enrolled in the College of Education, an extensive scoring manual was developed to define measures of 15 variables concerning structural, psychological, and educational aspects of the narratives. Internal consistency reliabilities ranged from .53 to .82. Four construct validity studies are also reported.

The scales successfully discriminated elementary from secondary majors, students involved in an experimental teacher education program from those in a control group, students who evidenced a strong intent to continue in teaching after graduation from those who had little intention of continuing, and students who had sought extensive personal counseling during their years in the program from those who had not sought such help.

RD 00 96

03.03

Authors: Veldman, Donald J.
Menaker, Shirley L.
Peck, Robert F.

Title: COMPUTER SCORING OF SENTENCE COMPLETION DATA

Date: Spring, 1968

Publication: Research Methodology Monograph No. 3

Abstract: This article summarizes developmental work on computer-based scoring systems carried out by the Computer Analysis of Personality project. This technique of personality assessment is especially valuable in situations such as teacher education programs where the same data may be used both for screening and for individual clinical analysis.

The development of techniques for computer-based personality assessment from sentence completions is outlined. The One-Word Sentence Completion (OWSC) instrument was designed to elicit data suitable for machine processing, while retaining most of the advantages of a free-response format. Two operative scoring systems are described. The first employs a "dictionary" of 4366 weighted response words to yield 25 scores from a 90-item OWSC form. The second system utilizes a complex word-root data reduction procedure and a bank of 892 generic roots to produce scores for 40 variables. Initial reliability data and normative sex differences are reported, and future development of the technique is discussed.

RD 00 97

03.03

Authors: Veldman, Donald J.
Menaker, Shirley L.
Williams, Don L.

Title: MANUAL FOR SCORING THE TEST OF DIRECTED IMAGINATION

Date: August, 1967

Publication: Research Methodology Monograph No. 4

Abstract: The Directed Imagination technique is the ultimate extension of the projective hypothesis, in that no physical stimuli are used. The subject is simply instructed to write "four fictional stories about teachers and their experiences." Subjects are given four minutes to complete each story. This manual describes in detail and with extensive examples the procedure for scoring each story on 15 dimensions relevant to teacher education research. The 15 dimensions are: Amount of Content, Degree of Focus on Individuals, Realism, Coherence, Imagination, Optimism, Identification with Teaching Role, Perception of Own Ability, Crisis Level, Empathy with Children, Maturity of Educational Content, Coping Activity, Adequacy of Action, Problem Resolution, and General Adjustment.

The monograph also includes results of an interjudge reliability study based on 78 protocols. Estimates of the reliability of pooled ratings of two judges ranged from .52 to .86 for the 15 scales.

RD 00 98

03.03

Authors: Veldman, Donald J.
Parker, G.V.C.

Title: ADJECTIVE RATING SCALES FOR SELF-DESCRIPTION

Date: 1968

Publication: R&D Center mimeograph

Abstract: This study concerns the development of an instrument to allow economical measurement of the seven personality factors isolated by the authors from Gough's 300-item *Adjective Check List*. The eight highest-loading words for each of the seven factors were arranged alphabetically and five-point rating scales were used to record the response of 61 undergraduates in teacher education at The University of Texas. Each subject was tested twice, with a 1-2 week interval.

Internal consistencies of the seven scales ranged from 169-191 (alpha coefficients). Item total correlations revealed no "bad" items for any scale. Replication of the original factor structure was successful, although some of the new scale scores were moderately intercorrelated. Test-retest reliabilities ranged from .80 to .92, and substantial evidence of concurrent validity was obtained from correlations with another self-descriptive inventory.

The seven factor variables (somewhat renamed) are: (1) Social Warmth, (2) Social Abrasiveness, (3) Ego Organization, (4) Introversion/Extroversion, (5) Neurotic Anxiety, (6) Individualism and (7) Social Attractiveness. The 56-item instrument has been designed as a Digitec machine-scoreable answer sheet, and is currently in use as a part of the required assessment battery of the College of Education at The University of Texas. Since the instrument appears to measure with great economy the major dimensions of personality isolated by other researchers, it appears to be a very promising tool for large-scale screening in situations where personality is known to be highly relevant to success and/or of crucial importance for guidance.

RD 00 99

03.03

Authors: Veldman, Donald J.
Peck, Robert F.

Title: INFLUENCES ON PUPIL EVALUATIONS OF STUDENT TEACHERS

Date: 1968

Publication: Journal of Educational Psychology (in press)

Abstract: This article extends the basis for use of the Pupil Observation Survey Report in teacher education research. Such data provide an important and unique viewpoint for description of student teachers' actual classroom behavior.

The influence of five aspects of the assessment context on pupil evaluations of student teachers were determined by multiple covariance analyses. The sources of influences were (a) teacher ability (grade in student teaching course), (b) grade level of the class taught (7-12), (c) subject matter area taught, (d) social class level of the school, and (e) sex of the student teacher. The six dependent variables were factor scores from the Pupil Observation Survey: (1) Friendly and Cheerful, (2) Knowledgeable and Poised, (3) Lively and Interesting, (4) Firm Control, (5) Non-Directive, and (6) the principal axis, General Evaluation. Implications for research with pupil evaluation measures are discussed.

Factor 1 was influenced primarily by the grade level taught. Factor 2 was a function of teacher ability, primarily. Factor 3 was very heavily influenced by the subject matter area, and also by the socioeconomic level of the school. Factor 4 was most influenced by the subject matter taught. Factor 5 was heavily influenced by teacher ability.

Generally, the POSR did not appear to be seriously biased by extraneous sources of variation, although its use in non-academic subject areas was questionable, and in any event should be separately normed.

RD 01 00
03.03

Authors: Veldman, Donald J.
Peck, Robert F.

Title: THE PUPIL OBSERVATION SURVEY: TEACHER BEHAVIOR FROM THE STUDENTS' VIEWPOINT

Date: October, 1967

Publication: Research Methodology Monograph No. 2

Abstract: This monograph summarizes the development of the Pupil Observation Survey Report (POSR), an instrument designed to be completed by pupils in junior and senior high school classes in order to describe their teachers. The instrument consists of 38 statements followed by four-choice agreement scales. Data from a single class are reduced to item means and then to scores on six factor dimensions isolated by analysis of over 600 student teachers studied in the Mental Health in Teacher Education project at The University of Texas.

The monograph reviews the various published research studies on the development and applications of the instrument, and includes a Fortran computer program for scoring the raw protocols. An example of an IBM 1230 optical-scanned answer sheet for the instrument is also included.

Comparisons of factor structures obtained from analyses of data describing large samples of male and female teachers are reported, as well as an extensive series of regression analyses concerning various potential influences on pupil evaluations of teachers.

This instrument is currently in use in a number of experimental studies being carried out by the R&D Center for Teacher Education.

RD 01 01

03.03

Authors: Veldman, Donald J.
Peck, Robert F.
Richek, H.G.

Title: PERSONALITY CORRELATES OF THE HIGH SCHOOL EXPERIENCES OF PROSPECTIVE TEACHERS

Date: 1968

Publication: Personnel and Guidance Journal, 1968, 46 (5), pp. 473-477

Abstract: Data pertaining to aspects of their high school experiences were provided by 192 female students who had successfully completed the teacher preparation program at the College of Education, The University of Texas at Austin. This information was used as the basis for defining groups which were then compared on a wide variety of measures of personality and student teaching performance. A number of significant relationships were found. It was concluded that the simple facts regarding students' high school experiences may be relevant to career commitment in teaching. The hypotheses suggested by this study will be of particular interest to researchers in the field of teacher education.

3

RD 01 02
04.02

Authors: White, Marjorie A.
Raun, Chester E.
Butts, David P.

Title: A STUDY OF CONTRASTING PATTERNS IN INSERVICE EDUCATION

Date: 1968

Publication: R&D Report Series No. 7, originally published as an R&D Center mimeograph as Science Inservice Project Research Report No. 3

ERIC No.: ED 021 807

Abstract: New curricula have been developed by cooperating groups that are not part of the local system. These curricula reflect a teaching philosophy that is different from that maintained by many teachers. A teacher education program has been developed to meet this need. The question of this study is: what conditions affect the impact of the teacher education program when its impact is described in terms of competency in science and attitude toward both the curriculum innovation and the teacher education program?

Variables contributing to anticipated outcome included organization of the program (i.e., summer inservice workshop, released-time inservice training, or college credit program, the location of the program), previous teaching experience; previous science courses, and grade level taught.

In the study, the curriculum, *Science - A Process Approach*, was the same for all participants. The sample was composed of three groups: 33 teachers in the college credit plan; 33 teachers in a one-week pre-school workshop; and 74 teachers in a released-time inservice plan.

Regression analysis showed that organization and location of the teacher education program are relevant conditions. For an improvement in both competence in science and teacher attitude it appears that the released-time format of teacher training is more effective. Previous science courses appear to be a relevant condition for increased competence in science and, to a limited extent, for a more positive attitude toward science. Previous teaching experience and grade level taught do not appear to be related to competence in science but are related to a teacher's attitude.

RD 01 03
02.03

Author: Wilson, Dave

Title: SANDRA SMITH: AN INDIVIDUAL STEPS OUT

Date: April, 1969

Publication: R&D Report Series No. 13, reprint of article appearing in The Texas Parent-Teacher, Vol. 47, No. 4, pp. 5-8

Abstract: This feature story informally recounts the passage of a University of Texas coed through an experimental program of personalized education in the UT at Austin College of Education. Sandra Smith is a typical female subject for one of the research projects of the Research and Development Center for Teacher Education. She completes written psychological assessment tests, undergoes psychological feedback counseling, is filmed while teaching and views her films in company with the psychologist and her supervisor. She participates in a special junior-year program as a teaching aid in an Austin junior high school. How Sandra changed over the two-year period is discussed by both herself and her counselor.

RD 01 04

04.02

Author: York, L. Jean

Title: CRITERIA FOR SELECTION OF MATERIALS FOR INDIVIDUALIZED INSTRUCTION

Date: March, 1968

Publication: Outline of address presented at the Education Research Service Center, Region XII, Waco, Texas

Abstract: The paper is an outline of criteria to be employed in selecting materials for individualized instruction programs. Criteria based on authorship, format of materials, consistency of philosophy, consistency of learning theory, consistency of evaluation materials, teachers' aids, availability of service, and cost. Designed for use in judging the adequacy of individualized instruction materials that may be under consideration for use in a program.

Status: Complete presentation not available; outline only.

RD 01 05
04.02

Author: York, L. Jean

Title: MODULE I: THE BACKGROUND, PHILOSOPHY, AND PURPOSE OF TEAM TEACHING

Date: May, 1969

Publication: R&D Center bound mimeograph

Abstract: The first in a projected series of ten modules on team teaching, Module I utilizes films, sound tape recordings, a review of literature, and printed articles from various sources to: (1) trace the history of school programs based on shared teacher responsibilities and note the teaching methods and innovations which have grown out of these efforts; (2) describe the psychological concepts of growth and development on which team teaching is founded; and (3) define and discuss the objectives and purposes of the program in terms of benefits to both teachers and students. Through the use of self-administered pretests and posttests, module users may evaluate their learning needs and their progress. Module I has been tested by Dr. York, with positive results, both in the college classroom and in urban and community schools in Texas, with teachers of widely varying ages and educational and cultural backgrounds. Prepared and packaged for individual use, the materials are readily adapted for use in conjunction with college education courses, or for the in-service training of teachers and administrators.

RD 01 06

04.02

Author: York, L. Jean

Title: MODULE II: THE ROLES OF THE PROFESSIONAL AND PARAPROFESSIONAL PERSONNEL IN TEAM TEACHING

Date: May, 1969

Publication: R&D Center bound mimeograph

Abstract: The second in a series of ten modules designed for individualized instruction in team teaching, Module II is concerned with efficient use of staff resources -- both professional and nonprofessional -- in a team teaching situation. The responsibility of the professional in teaching and in delegating non-teaching responsibilities, the tasks that teacher aides and student aides may and may not perform, the many uses of resource personnel from outside the school, are all topics included in the learning materials comprising this module. In addition, a film presentation provides an expert's theory of a differentiated teaching staff, utilizing variations in both rank and pay, and how this system utilizes teacher resources in a way that benefits both teachers and children. Designed for use by pre-service and in-service teachers and by school administrators, the Module II materials are self-paced and pre-packaged for individual use. Pretests and posttests, both for individual tasks and for Module II itself, facilitate individual diagnosis and evaluation of learning needs and progress. The materials have been tested with teachers representing a wide range of ages and educational levels and cultural backgrounds, and are suitable for use in conjunction with college courses in education or in-service training programs.

RD 01 11
04.02

Author: York, L. Jean

Title: MODULE VI: EVALUATION OF TEAM TEACHING AND CHILDREN'S CONTINUOUS PROGRESS

Date: July, 1969

Publication: R&D Center bound mimeograph

Abstract: The sixth in a series of modules designed for instruction in team teaching, "Evaluation of Team Teaching and Children's Continuous Progress' provides an individualized and multi-media approach to the important areas of evaluation and reporting. Directed at both preservice and inservice teachers and administrators, the instructional materials include readings, films, recordings, along with related individual or group activities which furnish learning experiences in the theory and practice of evaluation and reporting pupil progress, particularly in the nongraded, team teaching situation. The module materials utilize varied learning styles, as well as media; for example, module users may role-play a parent-teacher conference, or participate in the selection of an appropriate report form for a particular school situation. Through pretesting, individual learner needs are identified and an individualized course of study prescribed for each module user. In addition, group options provide special learning activities for use in the college classroom or inservice training program. Pre-packaged Module VI materials are available from the R&D Center for Teacher Education.

RD 01 07
04.02

Author: York, L. Jean

Title: MODULE VII: PREREQUISITES FOR GOOD PLANNING SESSIONS IN TEAM TEACHING

Date: May, 1969

Publication: R&D Center bound mimeograph

Abstract: Module VII, in a series of ten modules designed for instruction in team teaching, is concerned with effective functioning of team planning sessions toward the goal of improved instruction. Multi-media study materials emphasize the need for flexibility in relating the various purposes of planning sessions to the types of decisions to be made in those meetings -- decisions of long-range or immediate effect, and those which are concerned with pupil or teacher adjustment, curriculum, evaluation or administrative details. The necessity for involving administrative personnel, as well as other professionals and paraprofessionals, in planning, and the need for frequent regular meetings and for effective team leadership, are other topics considered. Video tapes of three team meetings provide vicarious experiences in team planning and illustrate the variety of ways in which teams can plan together in varying situations to facilitate learning. Designed for use by pre-service or in-service teachers and administrators, the study materials are pre-packaged for individual use. Directions for use of the video tapes with an alternate activity are included for the instructor who plans to utilize materials in a group or classroom setting.

RD 01 18
04.02

Author: York, L. Jean

Title: MODULE VIII: TEAM TEACHING AS A FACILITATOR OF THE NONGRADED SCHOOL

Date: June, 1969

Publication: R&D Center bound mimeograph

Abstract: The eighth in a series of modules designed to provide an individualized and multi-media approach to the study of team teaching, this set of learning materials is aimed at examining the philosophy and practice of team teaching in the nongraded school. Directed at both preservice and inservice teachers and at school administrators as well, Module VIII provides, through pre-testing and branched study plans, a way of self-selecting and self-pacing the learning program to best meet the needs of the individual module user. Through films, tapes, programmed lessons, various reading materials, and extensive self-evaluation techniques, the materials emphasize the nongraded concept of "continuous pupil progress" and the many ways in which team teaching can be used to facilitate the process. Along with a consideration of the advantages of nongrading, the module provides an examination of those misconceptions or misapplications which often form stumbling blocks to the successful program. Team diagnosis and evaluation of individual pupil needs, use of team resources in instructional activities, curriculum adjustment and multimedia instruction techniques in the nongraded school, are among the other major topics considered. The modules may be used for individual study or in conjunction with inservice or college courses in education.

RD 01 08

04.02

Author: York, L. Jean

Title: SCIENCE INSERVICE EDUCATION PRACTICES IN THE CAPITOL CITIES OF THE UNITED STATES

Date: April, 1968

Publication: R&D Center mimeograph of paper presented at the annual meeting of the National Science Teachers Association

Abstract: This study focuses on the status of science inservice education practices in the public elementary schools of capitol cities of the United States. Data was collected from superintendents of the school systems in the capitol cities of the 50 states by questionnaire in November and December, 1967. Questionnaires were returned by 34 of the 50 superintendents. The data were analyzed by numerical computation of each question and by computing the percentage of the items on each part of the questionnaire. Results: 91 percent of capitol cities had a science inservice education program in the past 10 years; number of teachers involved, more than 12, 549; kinds of inservice education programs described; time when programs were held described; satisfaction computed; reasons for programs listed; existent science programs described. Conclusions: impact of science is widely felt; numbers of teachers involved is relatively small; 93 percent of the programs emphasized content and process; inservice programs presented at bad times; variety of personnel involved; most administrators believed their programs to be superior; superintendents believed inservice education necessary; majority of elementary science programs emphasize content and process.

RD 01 09

04.02

Author: York, L. Jean

Title: A STATUS STUDY OF SUMMER READING PROGRAMS

Date: April, 1968

Publication: R&D Center mimeograph of paper presented at annual meeting of the International Reading Association

Abstract: This is a status study of the summer reading programs in the capitol cities of the United States conducted to provide data to be used in analyzing the characteristics of these programs. The data were collected from superintendents of schools in capitol cities of the 50 states during November and December, 1967. A questionnaire was used; 30 of the 50 superintendents returned their questionnaires. The data were analyzed by computing percentages for each question on the questionnaire. Results: 86 percent of the capitol cities had summer reading programs in 1967; financial support described; eligibility for the reading programs described; personnel conducting the programs described; kinds of instruction described; evaluation of reading programs described. Conclusions: reading programs held in summer, 1967, by 86 percent of the capitol cities; 63 percent supported by federal funds; eligibility based on attendance at Title I school or combination of scio-economic level and below grade-level reading ability; most programs for multi-age instruction; eligibility determined by former teachers; variety of instruction personnel; programs include all language arts in 50 percent of the schools; 53 percent include mathematics, 23 percent include social sciences and science; evaluation chiefly by teachers and administrators. Capitol cities are providing leadership in practices that might well be emulated in other areas.